The OIL WEEKLY

FOR THE DRILLING, PRODUCING, PIPE LINE INDUSTRY

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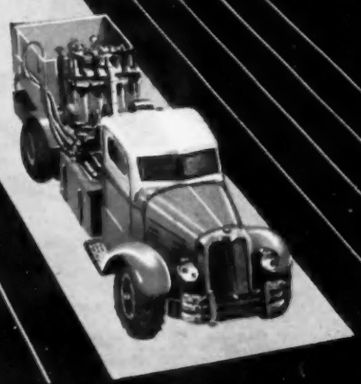

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VOLUME 120, NUMBER 8

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# The OIL WEEKLY

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## LOOKING AHEAD
*. . . with the Editor*

DURING 1945 more than $30 million was spent by the oil companies of the United States to maintain seismograph crews in this country. This is a large outlay of private capital, particularly when it is considered that this represents only one phase of exploration for oil and gas.

To recapture this expense, seismograph work will have to be responsible for the discovery of approximately 60 million barrels of new oil reserves. The discovery of one large field would satisfy this requirement.

Although no one expects every seismograph survey to result in a discovery, the burden of oil prospecting has, for more than ten years, been placed principally on this method. This makes it reasonable to consider whether the best possible use is being made of this tool.

Since reflection shooting first came into its own about ten years ago there have been other exploration methods advanced and in some instances have proven successful. Even with these new methods of finding oil, the seismograph is still known as the "King of Instruments." Yet a cat may look at a king and a closer review of this instrument is timely.

This is exactly what John Sloat, geophysicist, Union Oil Company of California, does in a sprightly article, "Is the Seismograph Still Champ?" to appear in a forthcoming issue.

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# The Outlook

Justice Department officials would deny it, but actually there is little enthusiasm for prosecution of the "Mother Hubbard" suit or any other of the prewar anti-trust cases. Not only is there some question whether the defendants in these cases are still following the practices complained of five or six years ago, but there is a growing feeling that a trust-busting campaign now might complete the demoralization of the postwar industrial structure started by labor controversies.

* * * *

Lots of talk, but little action is likely to be the keynote in Congress. With campaigns just around the corner involving every seat in the House and one-third of those in the Senate, members are going to weigh the respective votes of labor and non-labor constituents very carefully indeed. Biggest problem is what sort of legislation they could enact if they would. A law can make a man show up on the job, but it can't make him work when he gets there.

* * * *

Possibilities of government ownership of transportation are seen by some congressmen unless a formula is developed to solve problems of privately-owned transportation. Nationalization of transportation and communication has always been the first step toward socialism, say those who warn that government control of transportation would affect every industry and business and, give politicians one of the nation's largest units of purchasing power.

* * * *

Industry objections to legislation which would expand the mandatory powers of the Census Bureau to cover all surveys and studies which it might deem necessary will be laid before the House Census Committee by Dr. Frank M. Surface of Standard Oil Company (New Jersey) as representative of the United States Chamber of Commerce. The chamber favors the proposal to put the census of manufacturers on a five-year basis (it is now taken decennially), but sees a burden on business inherent in any blank check given the bureau to require responses to any inquiry it sends out.

* * * *

Congress within the next few months will decide whether to streamline itself, but since the streamlining involves a sharp reduction in the number of committees, with a corresponding cut in chairmanships, prestige rather than practicabilities is likely to keynote the debate and determine the extent of reorganization.

* * * *

Negotiation of a United States loan to France, of something less than $3 billion, will start within the next few weeks, but no definite agreement will be made until it develops how Congress views such loans, as exemplified in the proposed advance of credit to the United Kingdom.

* * * *

Disposal of surplus property appears all fouled up, not through dishonest practices on anyone's part but rather clumsy and ineffective management superimposed on impractical legislation.

* * * *

Postwar conditions favor operations of unprincipled promoters and sharpshooters. Beware of the "golden business opportunity" ready to be unloaded at bargain prices.

* * * *

Oil companies will insist upon guarantees of stable labor relations in union contracts before they will accept the fact-finding panel's recommendations. Not wages but other union demands affecting continuity of industry operations are now the issue. (See page 23.)

* * * *

A bitter fight is getting under way in Washington to force the federal government to relinquish its claims on the great oil reserves which underlie the continent shelf. (See page 27.)

*No. 5 of a series*

# Cementrol*

Here are two more cementing problems which Larkin Cementrol Equipment has solved.

At the right is illustrated the manner in which Cementrol may be applied to overcome two distinct cementing problems: (1) protection of the open hole formation immediately below the casing seat and (2) cementing of the casing string above a cavity, crevice or other "zone of lost circulation."

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Full details on the applications and operation of Larkin Cementrol equipment will be gladly furnished upon request. But check with your supply store. They have a complete line of Larkin Equipment.

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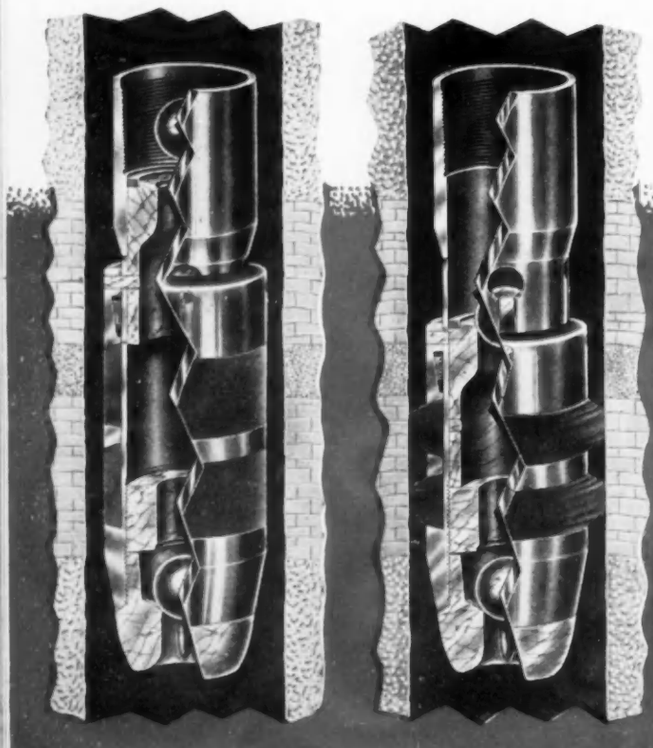
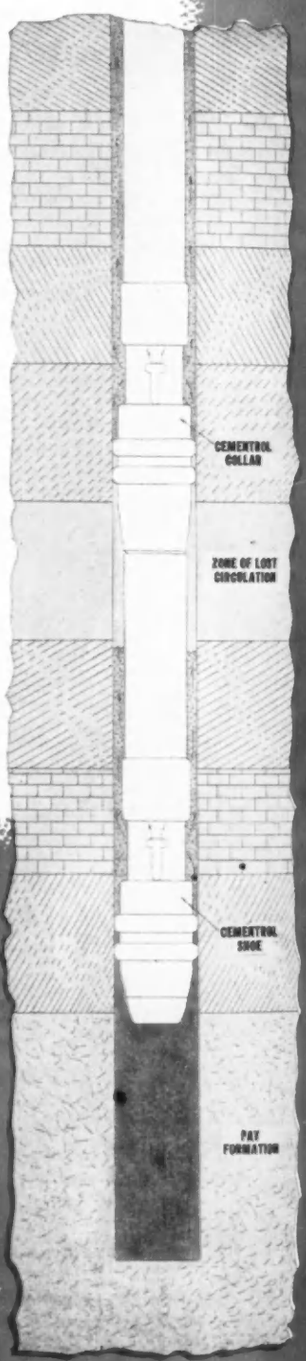


*CEMENTROL* Shoe, Running-in position.

Packer set, casing bridged, side cementing ports exposed.

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# The Changing Panorama

## Middle East Oil Assumes Bigger Role

MIDDLE East oil is to become a more important factor in the international petroleum picture within the next year or two. This is indicated by plans for building of pipe lines that will afford outlets for much larger quantities than in the past.

Under construction is a pipe line that will double the production of Iraq, which has been limited to 90,000 barrels daily by its pipe line capacity. The proposed pipe line from Saudi Arabia to a Mediterranean port has taken a more definite form (THE OIL WEEKLY, January 14).

Although plans are not complete for the Arabian system, indications are for a 24 or 26-inch line which would handle 250,000 to 300,000 barrels daily. Present production of Saudi Arabia is confined to 87,000 barrels daily, which is the capacity of refining facilities. This output, however, will be boosted to 110,000 barrels daily soon with completion of additional refining facilities. The proposed line would mean a very substantial increase in output if used to capacity.

The line, 1000 miles long and traversing the north central portion of Saudi Arabia, is to be built by Trans-Arabian Pipeline Company, owned jointly by Standard Oil Company of California and The Texas Company. The point at which the oil will reach the Mediterranean has not been decided, and while some point on the Lebanese coast or in the Haifa area seems to be favored, other ports to the southwest also have been considered.

Eight hundred miles of the proposed route is almost perfect country for pipe line construction, where even road construction will not be required. Here much of the line may be laid on the surface. It would start at an altitude of about 900 feet and gradually climb to a maximum of 3000 feet at the great scarp east of the Mediterranean coast. Then it would traverse the rugged lava country and Palestine, dropping some 4000 feet and then rising another 1000 feet at the coast. Only one permanent water-course would have to be crossed if the present route is followed. Water along the route can be found at varying depths up to 800 feet.

*It is the spirit of competition that has made this country great and it is the dispirited resorting to cartels and anti-competitive understandings that has spelled the industrial doom of the older nations abroad.*

—SAMUEL B. ECKERT, *Vice President,* Sun Oil Company.

## Oil Companies Seek Labor Stabilization

DEMAND by the oil companies for inclusion in union contracts of guarantees of stable labor relations, is expected to be the basic condition on which management will accept the fact-finding panel's recommendations for the settlement of the refiner workers troubles. Industry's position is believed expressed in the statement of Clark S. Teitesworth, chairman of the manufacturing committee of Socony-Vacuum Oil Company:

"This company, however, has been prepared to pay a wage increase of 18 percent provided that the new contract with the union provides for a 40-hour week, covers at least a period of one year, and do not include any closed shop or maintenance of membership provisions such as certain refineries were forced to adopt during the war by the order of the now defunct National War Labor Board."

Not wages but other union demands affecting the continuity of industry operations are the issues of main concern to the companies. Even after wage adjustments new proposals by the union can be expected. A significant inflationary threat is hidden in CIO policy for short-term contracts and reopening clauses. Refinery operations, especially, face the prospect of almost continually renewed demands and work stoppages which will restrict throughput, upset price structures and block long-term operations because of obvious cost uncertainties.

While CIO strategy now is to link wage demand with ability to pay, industry negotiators generally feel the union is unready to tie wages to living costs or to production so that labor's pay would be dependent on expanded volume of output.

A program by labor of "planned unrest" during the reconversion and transitional period would prevent industry from achieving production levels needed to raise wages.

## Industrial Leadership Great Britain's Aim

A MOVE on the part of Great Britain and her industries to link up fuel—oil or coal—and to create a vast new industrial area is seen from the announcement by Imperial Chemical Industries, Ltd., that it will spend some $50 million over the next five years establishing a huge new chemical center at Wilton in northeast Yorkshire. The program contemplates large scale production of heavy organic chemicals from oil, coal and other basic materials. Development in other areas and countries by this combine is looked for.

"This development links up with the appreciation in Britain that coal is no longer a commodity to be exported at low rates throughout the world," THE OIL WEEKLY's British correspondent advises. "It is rather seen by our experts as offering the most valuable source of many raw materials and finished products which we have failed to exploit in the past but which we must now develop and export. It is argued that the export of raw coal robs the country of one of the most valuable of materials for a great variety of chemical, fuel and other products which could go far to establish in Britain the industries which will once again permit the revival of British industrial leadership. To export raw coal is to allow other nations the opportunity to use this raw material to produce items which we could produce at home much more readily."

The British writer adds comment to the effect that this decision "has very definite potentialities, especially when linked with an organization of so far-reaching a nature as I.C.I., Ltd."

*Scientists admit their lack of skill in locating stratigraphic trap type fields. . . . If the day ever arrives when the only pools remaining to be found are of the stratigraphic trap type, either science will have to devise means of finding them or the tradition of Drake, Joiner, and Gutowsky will be predominate in oil hunting. Then the oil game will have completed the circle. It will have crossed and recrossed a continent, become the base of a great and indispensable industry, and, if science fails, will finally find itself once more dependent upon a string of tools and an individual anxious to take chances on the terrestrial unknown.*

—From "The Wildcatters," by SAMUEL W. TAIT, JR.

# GRAY

## SYSTEMS OF WELL CONTROL

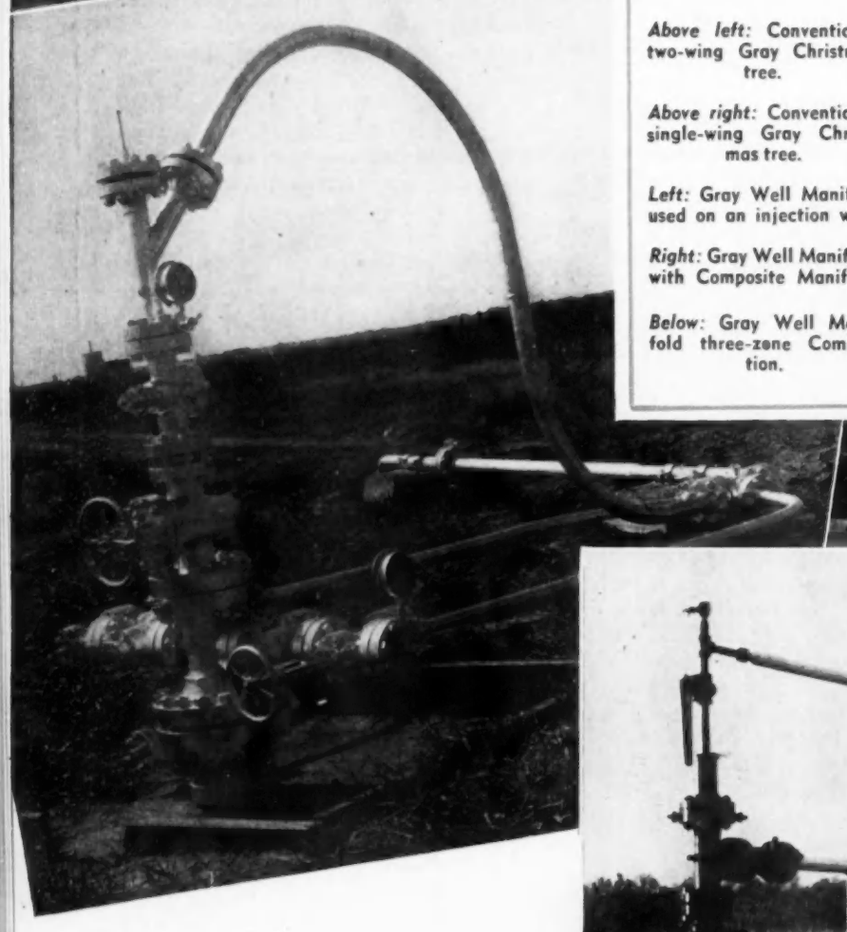
*Above left:* Conventional two-wing Gray Christmas tree.

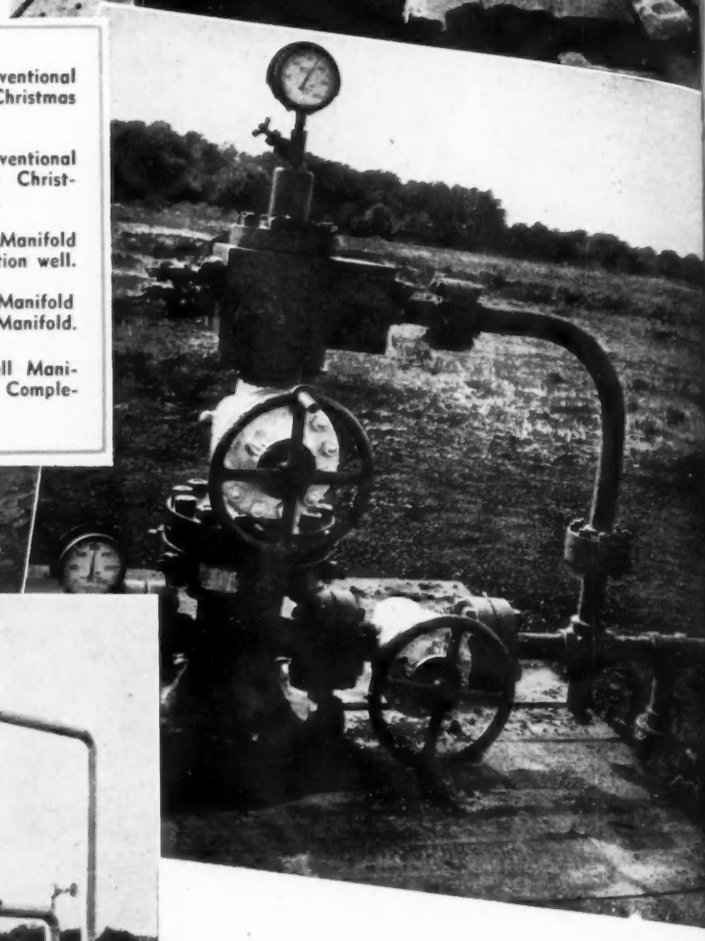
*Above right:* Conventional single-wing Gray Christmas tree.

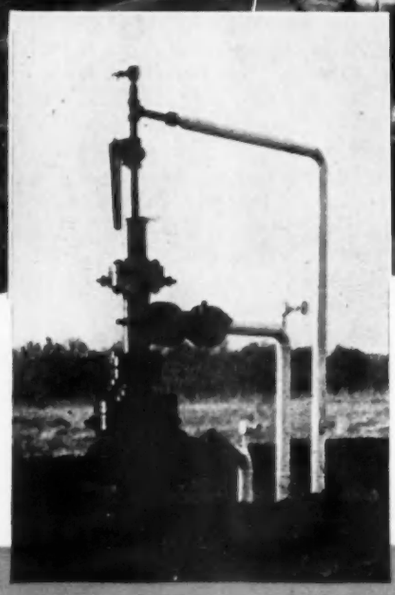
*Left:* Gray Well Manifold used on an injection well.

*Right:* Gray Well Manifold with Composite Manifold.

*Below:* Gray Well Manifold three-zone Completion.







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**GRAY TOOL COMPANY, HOUSTON, TEXAS**

# The Week's News

Congress, back in Washington to cope with a long list of legislative proposals including several of vital interest to the oil industry, accomplished nothing in its first week while members fumed over the President's delay in sending up his message on the state of the union which is the signal to get down to business.

**SPA Refineries Recommendation**—Two important reports however were among the many sent to the Capitol by federal agencies. In one the Surplus Property Administrator saw no need for retention of any of the government-owned aviation gasoline plants and recommended the prompt sale or lease of all of them. He admitted that if wartime operators do not exercise their options the government will get little back on its investment beyond their salvage value. Story below.

**National Rubber Policy Asked**—In the other the SPA called upon Congress to adopt a national rubber policy before it made any recommendations as to disposal of the synthetic rubber plants, pointing out that disposal would depend upon how much synthetic capacity national policy would require to be kept in standby condition against another emergency. It urged that no time be lost in writing the policy because the best return lay in disposing of the plants before the critical test of competition might prove synthetic unable to compete with natural crude. Page 28.

**Alaska Reserve Contracts**—The Navy Department has returned to the oil industry for its work in the Naval reserves with a contract for exploration of the Alaskan reserve, as officials long since promised the industry they would. The $11 million program to find out how much oil there is in the government's Alaskan reserve will run to 1950 if Congress keeps on providing funds as needed. Page 27.

**Refinery Workers Wages**—With the petroleum wage panel recommending an 18 percent increase in refinery wage rates which already had been accepted by several companies whose plants had been seized by the government, the Navy Department sent a "task force" into the refinery centers in Texas and Illinois to confer with the holdouts. The refinery strike shortly should be a thing of the past, but the oil industry may find itself with new handicaps as a result of difficulties in the steel and electrical industries. Pages 31 and 32.

**Tidelands Fight**—Robert W. Kenny, California's Attorney General, has let forth a warning blast directed to states, landowners, etc., urging them to enlist in the fight against the effort of the federal government to assert title to submerged lands. Page 27.

**Reaffirms Approval of Pact**—IPAA executive committee, meeting in Shreveport, affirmed approval of the Anglo-American oil pact, asked for early conference to determine nation's policy on imports. Page 30.

**Stripper Subsidy Plan**—Continuance of government assistance to stripper and high-cost producers is expected to be announced this week. Page 29.

**Pauley Nominated**—Edwin Pauley has been nominated as undersecretary of the Navy and is expected to be groomed to take over the top post when James Forrestall resigns in April. Page 26.

**Ad Valorem Tax Group**—Marshall L. Edwards of Tulsa was named chairman of the Ad Valorem Tax Forum of Mid-Continent Oil & Gas Association at the annual meeting held last week. Page 30.

## SPA Plan for War Refineries Shows Sharp Contrast to Industry's Views

Sharp and basic difference of opinion are revealed between industry and government concerning the postwar disposal of petroleum properties. This conflict of views was disclosed in the recent two reports to Congress by the Surplus Property Administration, the first, embodying the SPA's proposals relating to the Big Inch and the Litle Inch (THE OIL WEEKLY, January 7 and 14) January 14, relating to SPA's recommendations for the disposal of the wartime-built aviation gasoline plants and facilities.

In its report on refinery facilities, SPA favors liberal leasing arrangements of the government's $232 million plants. The agency says that "in many instances a leasing arrangement coupled with a purchase conversion privilege may meet the requirements of the operator and better assure full conformity with the objectives of the Surplus Property Act."

Where disposal by sale is not feasible, SPA urges that the disposal program "include interim leasing arrangements under which facilities may be converted to maximum peacetime use." Alternately, SPA proposes stand-by leasing arrangements, "under which facilities not economically usable for their designed purpose under present conditions, can be operated and maintained for other uses until such time as marketing factors, or technological developments now in progress offer an opportunity to realize a relatively superior use value in their sale."

### Box Score on The Federal Debt

**The federal debt stood at an all-time high of $278 billion at the close of 1945 after increasing nearly $47 billion during the year, but administration officials are hopeful that no further increase will be required in the maximum debt limit, now fixed at $300 billion.**

**In the last six months of the year, federal income was $20,591 million, less than $600 million under the corresponding period in 1944, while total expenditures were $38,698 million, or nearly $10,500 million less.**

**Currently, expenditures for war activities have been cut to about $100 million a day, or approximately one-sixth of what they were a year ago.**

This proposal counters industry's own views as earlier set forth by the Committee on Postwar Disposal of Pipelines, Refineries and Tankers, presented to the O'Mahoney Committee. The industry warning, in the name of a representative committee representing about 25 companies and five associations, was that "The government should not attempt to operate surplus plants, pipe lines or other similar facilities. The oil industry believes in the free enterprise system and believes that there is no place in such a system for government in business." Specifically, the industry committee said concerning usable facilities:

"We are opposed to long-term leases of plants by the government to private operators since such leases would in effect continue the government in business."

#### Against Stand-by Plan

SPA unqualifiedly opposes any plan to retain the plants as stand-by facilities in the event of another war emergency. Rather, the recommendation realizes the competitive picture that may be created by the disposal policy, although the SPA sees no monopoly dangers in its proposals.

The industry committee, headed by W. Alton Jones, president of Cities Service Company, which presented its case at the Senate hearings, argued differently: "If by placing government-owned property in private hands, existing industry facilities would be displaced and abandoned, we feel it would be bet-

ter for the economy of the country to hold such facilities in idle reserve."

In his report to Congress under the Surplus Property Act, Administrator W. Stuart Symington saw no need to hold any of the plants as stand-by facilities in event of another emergency, but recommended that their dismantling be undertaken only as a last resort.

More than two thirds of the wartime aviation gasoline construction program was handled by the industry itself through a $637,000,000 program of facility expansion, but the government invested $233,000,000 in 29 installations.

Sixty-five percent of the government investment was accounted for by 14 catalytic cracking units, 19 alkylation units and 15 isomerization units which were included in the 29 projects. One of the difficulties of disposition lies in the fact that only two of the 29 installations can be considered isolated or completely unscrambled, and only one is capable of operation as a separate enterprise.

The SPA report pointed out that the costs of the government facilities were inflated, both for reasons affecting all wartime construction and for a number of special reasons due to the introduction of porcesses still in their experimental stage, and these factors will lessen the economic return from the plants in peasetime operation.

These inflated costs also applied to industry construction, but the companies were able to write off a substantial part of their investment through accelerated amortization privileges and special reimbursement plans, the report commented.

The SPA saw no problem of monopoly involved in disposal policy, although disposition of government plants entirely to major operators would accelerate concentration of refining capacity in the hands of the large integrated companies. On the other hand, it was pointed out, the very small refiners could not effectively use the large government installations, but "disposal of the plants to wartime lessee-operators (most of whom are independents) or to other independents, indvidually or in association, may provide a method by which the very small refiners can secure high quality products which will satisfactorily compete with the products now being manufactured and marketed by major companies," the report suggested.

SPA held that it will be necessary to accommodate the period and terms of sale to the operator's financial status where plants are sold outright, and that in many instances a leasing arrangement coupled with a purchase conversion privilege may better meet the requirements of the operator.

The 16 plants costing more than $5 million each were listed by the SPA as those operated during the war by Abercrombie-Magnolia at Sweeney, Texas, costing $27,987,000; Ashland Oil and Refining Company, Catlettsburgh, Kentucky, $16,500,000; Associated Refiners, Inc., Beckett, Oklahoma, $14,865,000; Continental Oil Company, Ponca City, Oklahoma, $16,452,000; Cooperative Refining Company, Coffeyville, Kansas, $6,016,000; Crown Central Petroleum Corporation, Pasadena, Texas, $16,063,000; Eastern States Petroleum Corporation, Houston, $10,351,000; Frontier Refining Company, Cheyenne, Wyoming, $7,892,000; Great Southern Corporation Corpus Christi, $11,172,000 including four cycling plants in nearby oil fields; Premier Oil Refining Company, Cotton Valley, Louisiana, $6,450,000; Republic Oil Refining Company, Texas City, $11,234,000; Root Petroleum Company, El Dorado, Arkansas, $6,219,000; Southport Petroleum Company (now American Liberty Oil Company), Texas City, $11,543,000; Standard Oil Company (California), Richmond, California, $21,348,000; Utah Oil Refining Company, Salt Lake City, $15,382,000, including cost of terminal and storage at Fort Laramie, Wyoming; and Wilshire Oil Company, Inc., Norwalk, California, $8,561,000.

Of these 16 plants, nine are in whole or part operation under interim lease arrangements with the Reconstruction Finance Corporation. All leases are with the wartime operators. One plant, that of Standard Oil Company, was leased for eleven months to August 13, 1946; the others, operating on a month-to-month lease arrangement are the Ashland, Continental, Eastern States, Frontier, Great Southern, Republic, Root and Utah plants.

The only large plant which has been declared surplus is the Abercrombie-Magnolia plant at Sweeney, Texas, but two plants which cost less than $5,000,000 have been declared surplus, the Mohawk plant at Bakersfield, California, costing approximately $4,800,000, and the Pennzoil plant at Oil City, Pennsylvania, costing about $4,500,000.

**Editorial Index to 1945 Issues Available Upon Request**

**Due to the paper shortage, THE OIL WEEKLY again is deviating from its long-standing previous custom of incorporating its Annual Editorial Index in one of its regular issues mailed to all subscribers. The complete editorial index covering all issues of THE OIL WEEKLY published during 1945, bound separately in convenient pamphlet form, will be sent without charge to each subscriber requesting a copy.**

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# Ickes' Retirement Seen Possible As Pauley Named Navy Undersecretary

Edwin W. Pauley, California oil man who has been serving as U. S. Reparations Commissioner, was nominated by President Truman January 18 to be Undersecretary of the Navy. As second man in the Navy Department, Pauley will be groomed to take over the secretaryship when James Forrestal resigns in April.

With Pauley definitely out of the running for the top post in the Interior Department, Secretary Ickes may step down in the near future, possibly after Senate ratification of the Anglo-American petroleum agreement, on which he will testify before the Senate Foreign Relations Committee next month.

Pauley is a native of Indiana and lived in Alabama in his youth but has been a resident of California for the last quarter century. He is a graduate of Occidental College and the University of California.

In early life he went into the oil business, beginning at the bottom and finally becoming a refinery evaluator. After a serious injury which kept him in a hospital for a year, he went into business, leasing an oil refinery and eventually building up The Petroleum Corporation of California.

At the beginning of the war, Pauley was called in by President Roosevelt as an adviser on oil, working out plans for more efficient domestic distribution and for speeding up shipments to England. Later he was assigned to the lend-lease administration, aiding both the British and Russian governments in modernizing their refining and distribution practices. He was named by President Truman last year to represent the United States on the Allied Reparations Commission and since has spent much time in Germany, Russia and Japan.

## *Gasoline Plant Projected For Texas by United Gas*

United Gas Corporation has applied to the Securities and Exchange Commission for approval of a financing plan whereby a $14 million plant would be constructed near Brownsville, Texas, to make gasoline from natural gas.

United said that hydrocol had developed a process of manufacturing gasoline from natural gas, which, in the opinion of United engineers, "can possibly result in an important new and expanding market for natural gas when the process is further studied and developed on a commercial basis."

## *Eby to Join A. & M. Staff As Part-Time Lecturer*

Dr. J. Brian Eby, Houston geologist, who recently returned from an eight weeks tour of the oil fields in Europe, as a representative of THE OIL WEEKLY, has accepted a position on the geology staff of the A. & M. College of Texas.

Eby will serve as graduate professor of geology for the semester beginning February 1 and ending on June 1 and will teach applied petroleum geology, including a course in structural geology and oil geology. He will give only part time to his new duties and will maintain, as usual, his offices in Houston.

## *Arkansas Natural Gas Names Walker President*

H. C. Walker, Jr., of Shreveport, La., has been elected president of Arkansas Natural Gas Corporation.

A. H. Weyland of Shreveport, vice president and general manager of the corporation, has been retained in that position and elected president and general manager of Arkansas-Louisiana Gas Company, Arkansas Fuel Oil Company and Arkansas Pipe Line Corporation, operating firms of Arkansas Natural.

# Continuing Appropriations Needed for Alaskan Work; Contracts Are Awarded

With the close of the war, the Navy Department is recalling the Seabees engaged in exploration of Naval Petroleum Reserve No. 4, in Alaska, and is turning the work over to private contractors.

A million dollar contract for carrying out the 1946 program was formally announced by the department January 12 (THE OIL WEEKLY, January 14). The contract was awarded jointly to Hoover-Curtice and Ruby, Inc., New York mining and petroleum engineering construction managers, who will be responsible for over-all management, well-drilling and the geophysical phases of the exploration program, and C. F. Lytle Company and Green Construction Company, Des Moines, Iowa, general contractors, who will provide camp maintenance, operation and freighting.

The plan to turn the work over to private contractors was laid before the House Naval Affairs Committee late last year by department officials, who explained that several factors combined to influence that decision. They cited the long-time policy of the Navy of going to the industry for its oil development work, as in the case of the California Naval Reserve where development and operation was handled by Standard Oil Company of California. Other considerations were the difficulty of enlisting skilled oil men in the Seabees, and the fact that work can be conducted in northern Alaska only during a few months of the year.

The contract to the New York and Des Moines companies was awarded following consideration of bids submitted by several firms.

### First Phase of Work

The award covers the first phase of work in Alaska which will be done by private concerns under the Navy's long-range exploratory program which will run through 1950, provided additional funds are appropriated by Congress. Total estimated cost of the project, including funds already appropriated, is $11 million.

The general plan of the work to be undertaken, it was explained, follows that which was initiated by the Seabees. First, a general reconnaissance of the area by air-borne magnetometer, aerial photography and geophysical crews will be undertaken, followed by surface mapper. After this will come subsurface reconnaissance by gravity meter, seismograph and core drilling, and finally the drilling of some seven test wells on promising locations.

Exploration of the Alaskan reserve with a view to definite determination of its potentialities was initiated by the Seabees in the spring of 1944. So far, the eastern third of the reserve has been explored, in the course of which one structure favorable to the accumulation of oil was located at Umiat Mountain and the southeastern border of the reserve, and a test well, now approximately 1900 feet deep, penetrated five separate oil-bearing sands, none of which proved to be of commercial value but indicating that the well is being drilled in an oil-bearing location.

Several promising anomalies also have been indicate in the flat central plain between the Arctic Coast and the foothills of the Brooks Range from preliminary studies of the magnetic reconnaissance, and the geophysical surveys have developed indications of the structure near the oil seepage area on Cape Simpson.

To support the field personnel it has been necessary to establish a main camp at Point Barrow, with secondary camps at Umiat Mountain and Cape Simpson. Quantities of supplies have been landed at Point Barrow by ship during the past two summers, in the short period in which the Arctic Coast is free of ice, but most of the movement of heavy supplies and equipment inland had to be undertaken during the coldest weather period when ground, rivers and lakes will bear the weight of sled trains, since summer movement is impracticable due to numerous lakes and rivers, generally boggy tundra and the complete absence of roads and trails.

Because of the terrain, it has been necessary to rely on planes for much supplies, and landing fields have been constructed at Point Barrow, Umiat Mountain and Cape Simpson, with emergency strips midway between Fairbanks and Point Barrow and Point Barrow and Umiat.

All the equipment now in the reserve will be made available to the contractors as they find need for it.

## *Louis E. Hanson Is Chosen Socony-Vacuum Comptroller*

Louis E. Hanson has been named comptroller and Edward P. Fisher, assistant treasurer of Socony-Vacuum Oil Company. Hanson succeeds Arthur T. Roberts, retired, and Fisher succeeds John F. Seal, named treasurer.

Hanson was born in Norway and came to the United States at the age of 15. His first jobs were as carpenter, bellboy and elevator operator. He entered hotel management, in 1917 joined Arthur Young & Company, public accountants and auditors, and then became associated with White Eagle Oil Company. He went to Socony-Vacuum in 1935.

Fisher went to the foreign accounting department of Socony-Vacuum in 1928 and has been in the treasurer's department since 1932.

# Kenny Urges Nationwide Fight on Federal Seizure of Submerged Lands

A new memorandum asking widespread publicity in all states on the threat of government seizure of valuable properties involved in the effort to assert federal title to submerged and reclaimed lands was distributed last week by Robert W. Kenny, California Attorney General.

Copies of the memorandum, Kenny said, were sent to state and municipal officials, title guarantee companies, newspapers and other interested groups citing the properties which may be affected as including half of the city of Boston, Chicago's "Gold Coast," and Detroit and New York lands in addition to harbor developments in Los Angeles and Long Beach, California.

Answering contentions that the legislation now pending in Congress to relinquish any federal claim to the underwater lands is designed to deprive the courts of jurisdiction to pass on the question, Kenny asserted "it is the function of the Supreme Court to interpret the law but it is the function of Congress to write the law."

"It would be strange if the Supreme Court acting on a complaint filed after Congress began its consideration of this vital question should prejudge the validity of congressional action before that action were completed," he commented.

Kenny charged that a concerted effort is being made to have it appear that the suit is concerned only with conservation of California oil lands and declared that contention was nullified by a speech by Attorney General Tom C. Clark last November, in which he said a decision in the California case would settle the title to marginal lands in all states bordering on the sea.

Rather than settle the question definitely, a decision holding that the federal government owned the submerged and reclaimed lands would merely lead "to indefinite conflict and litigation," Kenny forecast, pointing out that it would be necessary everywhere to locate the low water mark as it existed when the state was admitted to the union, a task which would take many years and in some of the older states would be practically impossible.

"Success of the government's claim would inaugurate such chaos and confusion over these titles as this country has never before seen," he said. "Investments of municipalities and thousands of individuals would be seriously impaired overnight and titles to these properties would be thrown into disruption and almost inextricable legal entanglements.

"All titles would remain under a cloud until the title of each lot of each particular mile of coast, each mile of river bank or lake front had been litigated and final judgment rendered in the Supreme Court."

# Program for Disposal of Synthetic Plants Waits National Rubber Policy

The government-owned war-time synthetic rubber plants should not be declared surplus until a national rubber policy has been developed, but then should be disposed of as quickly as possible so as to insure the government a maximum return of its $680 million investment, the Surplus Property Administration reported to Congress January 16. Recommendations for a national policy will be submitted in the near future by the inter-agency policy committee on rubber, the SPA pointed out.

Once a policy is set, the report held, "Early disposal, while the prospects exist for a good market in the immediate future, appears likely to provide a better return to the government upon its investment than would disposal at some later date. It would also have the advantage of at once throwing the weight of private research and experimentation behind the improvement of quality and cost-saving processes."

The SPA assured Congress that, at the proper time, it will move promptly to formulate a disposal plan for plants declared surplus.

The government plants, 44 in number, have a rated capacity of 833,000 tons a year but are capable of producing about 1,100,000 tons annually, and will be able to turn out considerably in excess of the country's peacetime needs for synthetic rubber, the SPA explained. In addition, the government invested $36,000,000 in "scrambled facilities" in 16 privately-owned plants producing component materials.

Anxiety of the SPA that the plants be disposed of as soon as possible is based on the fact that as natural rubber supplies increase the proportion of synthetic required will be reduced. Currently, the use of natural rubber to synthetic is about 15 percent to 85 percent, and until natural rubber is in ample supply the maintenance of synthetic output at a substantial level would present no difficulty.

The ability of synthetic to face the competition of natural may begin to be tested in the course of 1947, but it may be longer delayed, the report comments.

The strictly economic test of the future of synthetic rubber is that of its ability to meet the competition of natural rubber on a cost and quality basis, and "if there were no other consideration than that of an economic supply of rubber, it could well be argued that the wartime plants should be left to stand or fall by reason of their ability or inability to meet competition with natural rubber," the SPA declared.

However, it pointed out, "the experience of the war has made it improbable that the country will ever deprive itself of the services of the synthetic-rubber industry as a safeguard against being cut off from supplies of natural rubber," and the major questions presenting themselves are (1) what part of the industry should be preserved in both active and stand-by condition capable of use in a future emergency; (2) what part of this total shall be kept in active operation, and (3) by what means shall the market be assured for that part which it is desired to retain in operation?

"The decision as to the amount of capacity to retain for national-defense purposes depends in part upon the size of the stock pile of natural rubber to be held, since there exists an inverse relationship between the two," it continued. "The larger the stock pile, the longer the time which can be safely allowed for restoring the capacity to produce synthetic rubber.

"Decisions on these points, and the means for giving them effect, do not lie within the discretion or responsibility of the Surplus Property Administration," Congress was reminded. "The making of them is, however, a precedent condition for the formulation of any program for the disposition and use of plants which may be made disposable under them."

## *Tanker Situation Improves; PAW Reactivation Fails*

Slight improvement in the East Coast tanker tie-up was evidenced last week. War Shipping Administration disclosed that there was a drop from 18 to 14 in the number of tankers held at Atlantic Seaboard ports due to crew shortages.

The tie-up continues to affect East Coast supplies, particularly the Barge Canal points of New York state. The acute fuel shortage in the East is chiefly attributable to transportation delay from the Gulf.

Meanwhile, PAW's attempt to reactivate industry committees during the emergency appears to have failed. The conference called by Deputy Petroleum Administrator Davies to devise a program for handling the fuel oil shortage virtually was boycotted by members of the District 1 Supply and Transportation Committee, invited to attend. Industry members were fearful of anti-trust reprisals, and it is doubtful that any industry groups can be persuaded to function even in advisory capacity unless some authorization similar to the old Directive 59 is reinstituted.

## *Oil Properties Sold*

Seminole Oil & Gas Corporation of Delaware has been formed for the purpose of acquiring oil holdings of Candler-Hill Corporation, including areas in Texas and Oklahoma. Seminole will develop the holdings further, Thomas B. Wright, president, said. Candler-Hill will devote itself strictly to its engineering and manufacturing enterprises.

## *To Review Progress of Synthetic Fuels Program*

Representatives of industry, the Army, Navy and other government agencies are meeting with Interior Department officials this week to hear technical progress reports upon the oil-shale phases of the Bureau of Mines' synthetic liquid fuels program.

The meeting was arranged by Director R. R. Sayers of the bureau to give technical representatives of the industry and government an opportunity to learn what is being done toward utilization of the oil shale deposits, and will be addressed by experts engaged in the work at Laramie, Wyoming, where an oil-shale research and development laboratory is being built; Rifle, Colorado, where the demonstration plant is being erected; Pittsburgh and Bruceton, Pennsylvania, where a coal hydrogenation and gas synthesis research and development laboratory is under construction; Louisiana, Missouri, site of the wartime government-owned synthetic ammonia plant which is to be converted into a coal hydrogenation and gas synthesis demonstration plant; and Morgantown, West Virginia, where gas production is being studied.

### THE OIL MAN'S CALENDAR

| | |
|---|---|
| JAN. 15–16 | IPAA Executive Committee Quarterly Meeting, Shreveport, Louisiana. |
| 17–18 | Annual Ad Valorem Tax Forum, Mid-Continent Oil and Gas Assn., Fort Worth, Blackstone Hotel. |
| 22 | Mid-Continent Oil and Gas Assn., Directors Meeting, Tulsa. |
| 28 | FPC Gas Hearing, Houston, Court Room 2, Post Office Building. |
| 28 | Independent Natural Gas Association, Annual Meeting, Houston. |
| FEB. 11 | FPC Gas Hearing, Biloxi, Mississippi. Buena Vista Hotel. |
| 19 | FPC Gas Hearing, Chicago. |
| 25–28 | AIME Annual Meeting, Chicago, Palmer House. |
| MAR. 19 | FPC Gas Hearing, Charleston, West Virginia. |
| 21–22 | Southern Gas Association, Galveston. |
| APRIL 1– 2 | Society of Exploration Geophysicists, Annual Meeting, Chicago, Stevens Hotel. |
| 2– 4 | American Association Petroleum Geologists, Annual Meeting, Chicago, Stevens Hotel. |
| 17–19 | Natural Gasoline Association of America, Annual Convention, Dallas, Baker Hotel. |
| 29 | And May 1-2, Independent Petroleum Association of America, Mid-Year Meeting, Houston. |
| MAY 7– 9 | National Association Corrosion Engineers, Kansas City, Missouri, President Hotel. |
| 16–18 | National Oil Scouts and Landmen's Association, Annual Convention, Jackson, Mississippi, Hotel Heidelberg. |
| 28–29 | American Petroleum Institute, Directors Meeting, Fort Worth. |
| NOV. 11–14 | American Petroleum Institute Annual Meeting, Chicago, Stevens Hotel. |

# Stripper Subsidy Continuance Likely

**Continuance of government assistance to stripper-well and high-cost producers may be announced by the Office of Economic Stabilization in a statement expected to be issued early th.s week.**

**OPA and OES officials who have been studying the matter reached an agreement last week, and said that decisions are be.ng acted upon but the action so far "has been in the family."**

**They did not disclose whether the present subsidy would be continued, but in view of the fact that its discontinuance would result in the closing down of large numbers of small wells, industry representatives in Washington expressed the view that it would either have to be ma.nta.ned or an increase granted in crude prices, to which OPA has been consistently opposed.**

**An OES spokesman said the oil industry would be given notice of the decision well in advance of any act.on taken under it which would affect operators.**

## *Marshall Edwards Heads Ad Valorem Tax Group*

Marshall L. Edwards, Skelly Oil Company, Tulsa, was elected chairman of the Ad Valorem Tax Forum of Mid-Continent Oil & Gas Association at the annual meeting held in Fort Worth January 17-18. He succeeds F. N. Shriver, Shell Oil Company, Houston. H. W. Pryor, Arkansas Fuel Oil Company, Shreveport, La., was chosen vice chairman. The tax group will hold its 1947 meeting at San Antonio. Clarel B. Mapes, Tulsa, was re-elected secretary.

Outlining the general trends of state and local taxation, Charles F. Conlon, Chicago, executive director of the Federation of Tax Administrators, stated that the states' principal source of tax revenue is derived from general sales, gasoline, motor vehicle, tobacco and liquor levies. Within the past 30 years the revenue from property taxes has decreased from 50 percent to about 5 percent of the total. He emphasized that local and municipal revenue continues to be largely dependent upon property taxes.

V. R. Shurmon, representing American Association of Oilwell Drilling Contractors, spoke on problems incident to the ad valorem taxation of rigs and machinery. A joint discussion of the taxation of producing properties in Indiana and Illinois was conducted by H. G. Chase, The Pure Oil Company; J. W. Elder, The Ohio Oil Company; and Guy L. Ritchie, The Texas Company. Similar subject for New Mexico was covered by Hugh L. Sawyers, executive secretary of New Mexico Oil & Gas Association; for Alabama by J. T. Carlton, member of the State Tax Commission; and for Mississippi by John C. Satterfield.

## *Gasoline Reimbursement Claims Due by January 31*

Responsibilities for passing on claims under the aviation gasoline reimbursement plan will be turned over by PAW to the Army-Navy Petroleum Board, effective January 31.

Contracts under the plan were terminated soon after V-J Day, and September 30, last, was set as the deadline for completion of operations. Contractors were instructed to submit all claims for losses promptly, and it is believed that all such claims have been received and are in process of settlement, Deputy Administrator Davies said. No claims will be accepted by PAW after January 1.

By filing with PAW by January 31 a notice of intention to file a claim for reimbursement under the plan, he said, an extension of time for filing the claim itself will be granted through April 30, next. In such cases, the claim itself must be filed before May 1 with the Army-Navy board.

### Crude Oil Production in the United States

(Estimates compiled by the OIL WEEKLY. All figures indicate daily averages in barrels.)

| STATE OR DISTRICT | PRODUCTION IN WEEK ENDED Jan. 19 | Jan. 12 |
|---|---|---|
| Alabama | 700 | 650 |
| Arkansas | 76,750 | 76,550 |
| California | 835,100 | 840,300 |
| Colorado | 28,750 | 30,050 |
| Florida | 100 | 100 |
| Illinois | 204,300 | 205,950 |
| Indiana | 14,200 | 14,150 |
| Kansas | 261,500 | 249,200 |
| Kentucky | 29,800 | 30,050 |
| Louisiana | 366,450 | 366,600 |
| North Louisiana | 77,600 | 77,750 |
| South Louisiana | 288,850 | 288,850 |
| Michigan | 46,000 | 45,250 |
| Mississippi | 56,600 | 53,600 |
| Missouri | 100 | 100 |
| Montana | 19,750 | 19,500 |
| Nebraska | 750 | 750 |
| New Mexico | 98,000 | 97,900 |
| New York | 14,500 | 13,750 |
| Ohio | 7,400 | 7,250 |
| Oklahoma | 391,850 | 391,050 |
| Pennsylvania | 36,100 | 35,450 |
| Tennessee | 35 | 35 |
| Texas | 2,000,450 | 2,000,800 |
| Upper Gulf Coast | 488,600 | 488,650 |
| East Texas Field | 320,050 | 320,100 |
| Rest of Eastern Texas | 140,000 | 140,100 |
| Southwest Texas | 328,800 | 328,850 |
| West Texas | 489,500 | 489,400 |
| North Texas | 152,700 | 152,750 |
| Panhandle | 80,800 | 80,950 |
| West Virginia | 8,200 | 7,100 |
| Wyoming | 91,700 | 91,650 |
| Total United States | 4,589,085 | 4,577,785 |

**BUREAU OF MINES REPORT**

Total stocks, foreign and domestic, January 12, as reported by the Bureau of Mines were: 219,219,000 barrels with a daily average production of 4,578,000, and runs to stills 4,498,000.

## *Texas February Allowable Exceeds Bureau's Estimate*

The Texas Railroad Commission last week entered its February proration order and provided an increase of 98,344 barrels of oil from Texas fields. No change was made for the remainder of January, although operators at the Statewide hearing had asked the same increase for the last half of this month.

The new order provides that there shall be 24 producing days for most fields. The East Texas field is to produce 19 days and the Panhandle is exempt from shutdown. The commission estimated that the total production of crude oil and distillate would be 2,294,601 barrels daily, which is 404,601 barrels in excess of the estimates of the United States Bureau of Mines.

The allowable for prorated wells totaled 2,244,331 barrels, but the commission estimated that operators would fail to produce 5.25 percent of that allowable or 117,827 barrels. Thus, the actual production of crude oil would amount to 2,126,504.

In addition, production of natural gasoline and distillate should average 168,097 barrels, which accounts for the additional production.

Most of the increase was in the Gulf Coast. There was an increase of 15,000 barrels in District 2, 10,000 barrels in District 4, and 52,000 barrels in District 3. West Texas was raised 13,000 barrels.

The next statewide proration hearing is scheduled February 19.

## *Stripper Well Importance Is Theme of Oklahoma Men*

Stripper wells and their importance in the over-all petroleum production picture will be discussed this week by George Pasquella, consulting engineer and geologist of Oklahoma and employed by the National Stripper Well Association, and E. G. Dahlgren, Oklahoma City, assistant secretary of the Interstate Oil Compact Commission, in Oklahoma City. The talks were before the Oil and Gas Division of the Oklahoma City Chamber of Commerce.

The stripper well survey for 1944 showed that three out of every four oil wells in the United States are stripper wells. Of the 52,374 producing wells in Oklahoma, approximately 49,398, with an average production of 3.2 barrels daily, are classified as strippers. In 1944, these wells produced 58,200,000 barrels of oil. Loss to the state's total oil production in 1944, through plugging of small wells, was placed at 3 million barrels. Recoverable stripper reserve by present known methods is estimated as high as 500 million barrels.

## *On Advisory Council*

Jacob France, president of Mid-Continent Oil Company, Baltimore, has been elected a member of the business advisory council for the Department of Commerce it was announced January 17 by Secretary Henry A. Wallace.

# Drilling Activity Is Expected After Geophysical Surveys in West Tennessee

Development of the Paleozoic section of Western Tennessee may follow the drilling of several wells during the past few years, some of which showed oil and gas in the section which should produce commercially provided suitable structural conditions can be encountered. Some geophysical work is being done by individual operators but no major oil companies are reported in the field.

Geophysical work is in progress in the Delta country on both sides of the Mississippi River, and this work is gradually nearing the Tennessee line.

In Crittenden County, Arkansas, a 50,000-acre lease block has been assembled near West Memphis and H. S. Wilson of Houston, is reported planning two tests. This area has been worked by W. P. Jenny, geophysicist, of Houston, who has done considerable work in the area as well as in Tipton County, Tennessee.

In McNairy County the Stephens Petroleum Company of Oklahoma City is drilling a wildcat well near Michie on a geophysical high which has also been worked by geochemical methods and subsurface. Just south of the area near Corinth in Alcorn County, Mississippi, the Lang Geophysical Company of Oklahoma has an active crew and plans to survey in Fayette, Tipton and Shelby counties, Tennessee.

### Three Wells Planned

Between the Cumberland and Tennessee rivers in Stewart County, Tennessee, S. P. Berry and O. W. Skirvin and others have taken a 14,000-acre block and are planning on drilling three wells to the Ordovician section. This area was worked by M. E. Carpenter and R. A. Conkling of Oklahoma City, and checked by Clifton Keeler. One block is known as the Moltke structure, bordering on the east bank of the Tennessee River. The Standing Rock Creek structure is adjacent to the Tennessee River and the Bear Creek structure is situated on the west bank of the Cumberland River.

Other operators are contemplating entering the West Tennessee area. Col. Robert R. F. Garland of San Antonio and formerly of Tulsa, is preparing to do some development in this area within the next few months. He has several discoveries to his credit in the Mid-Continent field and Illinois. W. O. Allen of Tulsa, will also do some additional developing in Tennessee in the near future. Clint Milan of Clarksburg, Texas, has taken a block in Fayette County, Tennessee, and plans to drill an Ordovician test, near Lagrange.

Geological and geophysical work in Fayette County has shown structure in several localities and it has caused new blocks to be leased. To the north of Somerville, the Americrude Oil Company of Michigan has taken an 8000-acre block, and upon completion of title work will drill an Ordovician test. This is on surface and geophysical work. South of Somerville, surface and seismic work has shown an anomaly that will be tested. East of Somerville about eight miles, M. S. Binswanger of Memphis, and the Oklahoma Oil Company of Okmulgee, drilled an interesting test several years ago, that showed oil, but bad hole conditions made it impossible to complete. Another test is promised in this locality which was worked with geophysics.

## *Pipes, Fittings, Valves Surplus Offered for Sale*

Large and small lots of unused valves, pipe, tubing and fittings, bought for use in shipbuilding operations and declared surplus by the U. S. Navy, will be offered for sale January 28, 29, and 30, at Beaumont and Orange, Texas. The valves and fittings will be sold at the Terminal Warehouse, Beaumont, and the pipe and tubing at the Consolidated Shipbuilding Corporation Yard at Orange, Texas. Sales will be made on a sealed bid basis. Ninety percent of the material is in good condition.

Catalogues of the material will be mailed upon request to the RFC Agency Office, 723 Main Street, Houston.

## *Curator of Drake Museum Seeks Broad Understanding*

To broaden the public's understanding of the oil business, Dr. Paul H. Giddens, curator of the Drake Well Museum, suggests a three-point program for consideration:

Each oil company could prepare and publish a complete history of its organization, showing where and how the company fits into the history of the oil industry. This book could be sent to all libraries. Then a brief pamphlet based upon the larger volume could be sent to consumers, stockholders and employes.

The industry and individual oil companies could establish fellowships at different colleges and universities for graduate and faculty members interested in research and writing on petroleum history.

The industry could create, and individual companies could make contributions to, and endowment fund for the Drake Museum to promote research, writing, and publication of material on petroleum history. Oil companies and oil men could deposit at the Museum valuable historical material and relics relating to oil, and urge others to do likewise.

## *Claims Action Needed to Save Independent Oil Men*

An immediate and positive program of action is necessary to keep the independent oil producers of the nation in business, the executive committee and state vice presidents of Independent Petroleum Association of America decided at its meeting last week in Shreveport, La. The group reaffirmed its prior indorsement of the Anglo-American oil agreement and selected Houston for its midyear meeting, the dates being April 20 to May 1. A vigorous approach to an early solution of the crude oil price problem was favored and a plan suggested for an early determination of a sound national import policy.

Major B. A. Hardey, president, said the oil industry is suffering from misunderstanding on the part of Washington officials and a short sighted policy on the part of oil-purchasing companies. "This coupled with excessive imports has brought about a situation which is forcing liquidation of oil purchasers who must depend solely upon the stability of the domestic industry for their livelihood," he said. "Unless the situation is corrected, the oil indutry of the U. S. will become a monopoly."

### Lift Price Ceiling

Hardey called for lifting of all wartime restrictions on the industry, particularly crude price ceilings. He said no shortage of crude exists, that shortages of certain petroleum products "has been entirely brought about by disrupting the normal laws of supply and demand."

The current increase in imports of foreign crude has reached a figure that is alarming, he said, and calls for an early conference of government officials and representatives of the industry and of oil-producing states for the purpose of arriving at a sound import policy. This proposed conference, to be called by the State Department, later was favored by resolution.

It was pointed out that since IPAA approval in October, the Anglo-American oil agreement had been approved by Pennsylvania Grade Crude Oil Assotion, by PIWC, by API and by New Mexico Oil and Gas Association among others. IPAA reaffirmed its stand and called on the Senate for ratification of the pact.

## *Navy Commendation Given Standard of California*

The Navy's Certificate of Achievement was awarded Standard Oil Company (California) last week for "exceptional accomplishment in behalf of the United States Navy and meritorious contribution to the national war effort."

Assistant Navy Secretary H. Struve Hensel expressed the Navy's thanks and appreciation to the company's employes and explained that the award "signalizes the Navy's recognition of the splendid efforts put forth by the men and women of your organization in support of the war production program."

# "Task Force" of Navy in Field After Panel Recommends 18 Percent Figure

An 18 percent wage increase — the figure agreed upon by several companies and the Oil Workers International Union—was recommended last week by the special oil panel appointed by Secretary of Labor Lewis B. Schwellenbach as the figure which the industry could pay upon return to the 40-hour week.

The panel, headed by Frank P. Graham, with Paul Eliel and Otto S. Beyer as members, reported that the average straight-time hourly earnings of the workers in 33 seized refineries for which data were available were 119.6 cents, and that the average gross hourly earnings of the industry were 128.1 cents per hour, as compared with 103.3 cents for all manufacturing industries in July, 1945.

### Findings of Panel

It found that the actual work week in July averaged 45.4 hours and that, on the basis of a scheduled work week of 40 hours, the hours actually to be worked, "according to reasonable estimate," will average 39.1. To the worker whose average straight-time hourly earnings were 119.6 cents, it held, this decline in hours would mean a drop in average weekly earnings from $58.36 to $47.77, or 18.1 percent. To restore these earnings through a change in basic wage rates would require an increase of 22 percent.

The panel also found that between January, 1941, and July, 1945, the straight-time average hourly earnings in refineries which reported to the Bureau of Labor Statistics increased 21.6 percent, while the regulations of the Stabilization Administrator stipulate that, for wage stabilization purposes, the increase in the cost of living since January, 1941, shall be deemed to be 33 percent. To compensate the workers in the struck plants for the difference between the increase in earnings and increase in cost of living would require an average wage increase of 9.5 percent.

### Amount in Excess Due

However, the report declared, a combination of considerations, such as less premium overtime pay, higher productivity, and settlements already negotiated through collective bargaining, indicated that an amount in excess of that due because of the increase in the cost of living should be granted.

"This additional increase which, in the judgment of the panel, will be just and reasonable, should be 8.5 percent beyond the 9.5 percent clearly due as a cost of living adjustment, thus making a total increase of 18 percent in basic wage rates," it was declared. "Based on these several factors, an increase of 18 percent in the basic wage rate in effect at the time of seizure of the plants and facilities is found to be the increase to be put into effect at the time of the resumption of the 40-hour week. In the judgment of the panel, the earnings of the workers must be as high as is consistent with both the maintenance of the stability of the price structure and the provision for reasonable returns to the owners of industry.

"In making this report of our findings of fact and recommendations for the settlement of the disputes in the oil industry, we consider it not inappropriate to remind the workers, their union and the companies that oil is one of the most basic sources of power in the modern world," the report said. "Upon them depends the full production of the oil industry. Upon the full production of the oil industry depends the full production of America. Upon the full production of America depend the economic recovery and the stable peace of the world."

### "Task Force" at Work

At the end of the week, a Navy "task force" was in consultation with a group of refinery representatives discussing the situation in the Gulf Coast, but had not announced settlements of the wage demands. It was expected that agreements would be reached. Vice Admiral Ben Moreell, chief of the Navy's materials bureau, in announcing the plan for the Navy men to go into the field and try to expedite settlement of the refinery strikes, said "Now that a wage increase of 18 percent has become the pattern for settlement of the basic issue, the remaining 'fringe' issues should be cleared up in a hurry by sincere collective bargaining."

Through the bargaining two refineries had announced settlement of the disputes. These included the Maritime Oil Company's Galena Park refinery, and the Crown Central Petroleum Corporation's refinery, both near Houston. Agreements were also expected by The Texas Company for its Galena Park refinery. Meanwhile the Navy officials, union representatives and executives of Shell Oil Corporation were expected to reach an agreement, momentarily.

The 18 percent wage increase averaged about 20 cents an hour more for refinery workers, bringing their pay up to $1.35 an hour. The Crown Central agreement included a retroactive clause to August 27, 1945, granting a 9 percent increase on all wages between that date and the last day of the old scale. As far as is known, this is the first agreement to carry a retroactive feature.

Following conservations in the Gulf Coast district, the Navy representatives will go to Chicago and participate in talks with a view to clearing up the situation in the Middle West.

## *Texas Lines Up Witnesses For FPC Houston Hearing*

Names of 21 witnesses who will appear before the Federal Power Commission when it resumes its hearings on uses of natural gas in Houston, January 28, have been submitted to the FPC by Charles I. Francis of Houston.

Francis is attorney for a committee selected last April by Governor Coke Stevenson to prepare Texas' part in the nationwide gas inquiry started in Kansas City last fall by FPC. Subsequent hearings have been held in Oklahoma City and New Orleans.

Governor Stevenson, as the first witness, will present "States' Rights and the National Gas Industry" while Olin Culberson, chairman of the Texas Railroad Commission, will give the state's position on conservation and its attitude toward federal regulation.

Other witnesses listed include Colonel E. O. Thompson and Beauford Jester, members of the Railroad Commission, Attorney General Grover Sellers, State Superintendent for Public Instruction L. A. Woods, Mayor Woodall of Dallas, E. DeGolyer, Maston Nixon, Col. George A. Hill, Jr., N. C. McGowen, D. A. Huley, R. C. Kay, Harold Vance and George H. Fancher, A. & M. College and University of Texas petroleum engineering professors, Dr. R. J. Gonzalez, S. E. Buckley, L. T. Potter, N. L. Mayfield, Robert Wilson, E. M. Eckhart and R. C. Allen.

## *War Assets Corporation Offering Ordnance Plant*

The War Assets Corporation, disposal agency of the Reconstruction Finance Corporation which originally started out in life as the Petroleum Reserves Corporation through which Secretary of the Interior Ickes planned to build a Middle East pipe line, is inviting proposals up to January 31 for the sale or lease of the Cactus Ordnance Works, near Etter, Texas, where the Shell Chemical Company manufactured anhydrous ammonia and an additive for high octane gasoline during the war.

The plant, on a site of 8325 acres in Moore and Sherman counties, in addition to a number of manufacturing buildings, fully equipped, has five barracks, 30 two-room cottages and 121 four-family houses, 12 gas wells, 8 water wells and its own steam-powered generators for electric current.

## *Stripper Wells Sold*

Thirty stripper wells in the Florence field of Colorado have been purchased from Continental Oil Company by Earl Hollandsworth of Longview, Texas. This is in addition to nine wells in the same field which he purchased from Continental about six months ago. Some of the wells involved in the transaction were drilled 35 years ago.

# "Fact-Finding" Means Even More Confusion

By A. R. McTEE, Staff Writer

As President Truman becomes more urgent in his appeal for fact-finding as a basis for strike settlement, and as the few fact-finding boards in operation thus far make their recommendations, it becomes apparent that "ability to pay" based upon the fact-finding procedure is the administration's method for solution of the labor disputes. Also from published statements, and from their reluctant acceptance of fact-finding to determine the ability to pay, it is just as apparent that management does not accept the philosophy of ability to pay, or the fact-finding procedure, even as a desirable approach to the problem. The oil companies so far affected by the strikes, for the most part, are unanimous in their opposition.

Oil companies agree that fact-finding, notwithstanding the statement of the President that his idea has been misconstrued strikes at the most basic function of management, and that if it becomes the basis for wage determination, the cornerstone of our present economic structure is gone and management will be wholly at the mercy of a givernment bureau, and will be compelled to follow policies which would be ruinous.

It is pointed out that under fact-finding, the scale of wages of a single company sets the scale for innumerable other companies not subjected to fact-finding, and that this automatic elimination of competition in the labor market will be disastrous. In the present General Motors case for instance, the final scale, if fixed by the fact-finding board, may affect as many as a thousand companies engaged in the manufacture of automobiles or parts and accessories. They will automatically be subject to the scale finally determined. Likewise, the wage set by the fact-finding board in the oil refinery disputes will become the basis for wages throughout the refining industry.

### Favorable Wage Comparison

In this connection, it is interesting to note that the fact-finding board has recommended an 18 percent increase, which is only 3 percent above the general salary raise which most oil companies had planned to put into effect immediately after V-J Day, and which a good many did announce very soon thereafter. It is also worthy of note that The Texas Company issued a statement when the refineries were seized in which it was stated that the average hourly earning at the Port Arthur, Texas, refinery was $1.31, or two and nine-tenth cents higher than the present gross hourly earning of the industry, 128.1 cents, reported by the fact-finding board in its recommendations to Secretary of Labor Schwellenbach. For the 33 seized refineries, the average straight-time hourly earnings of the workers for which data were available to the board, were 119.6 cents, 11.4 cents below The Texas Company's wage.

It is also the belief by the oil companies, and incidentally the expressed opinion of labor union leaders also, that the principle of collective bargaining should continue to be conducted on an individual plant basis, as the only fair way in which recognition can be given to different conditions prevailing in each community. Fact-finding if generally adopted destroys this principle.

The most serious objection to fact-finding is that it turns over to a governmental agency determination of such essential economic factors as costs, prices, and profits, for the future, in using ability to pay as the yardstick for wages. Costs, prices, and profits involve a number of elements such as forecasts, assumptions, consumer demand both domestic and foreign, and uncertain variables as to material and labor costs, which are altogether a function of management, and which are at the heart of every business institution, large or small, in varying degrees and number.

Because of these facts, it is not possible for any group, board or panel, outside the business itself to take over and assume the functions involved.

Which leads to the feeling that the work of fact-finding boards is bound to be superficial, because of its very nature, the length of time required, and the personnel available. No board could competently pass on what it might consider "facts" unless its members could qualify by long experience and association with the specific business or industry involved, as having intimate and detailed knowledge of and experience with the problems to be considered. Management itself does not even contend that its course is determined altogether by facts, since obviously, assumptions, estimates, and predictions are not facts in any sense of the word. Yet they do guide the line of development and expansion in busineses. These matters, however, are determined only after long research, careful consideration of present conditions, and a reasonable amount of assumption of what the future is likely to bring.

So far, the personnel of fact-finding boards, however well-intentioned they may be, however expansive their outlook, and however impartial in their views, cannot meet the qualifications. Management generally feels that men with the qualifications necessary, are not available, and cannot be made available for fact-finding.

The implications of fact-finding as it is being generally interpreted, regardless of what the President might have had in mind when he introduced it as an immediate measure to end the strikes, are so far reaching and involved when the procedure is actually put into operation that they become alarming. For instance it has been pointed out that "If it is the purpose of the fact-finding approach to provide for full disclosure of all pertinent information bearing on a specific issue, labor relations in tihs country will embark upon an entirely unknown road. . . . To pressure management into making concessions, it will then become standard tactics of a good union negotiator to raise issues which cannot possibly be resolved except by company disclosure and full discussion of highly confidential business facts."

"For example, a union negotiator may warn that if his demand for higher wage rates is not granted, he will then raise the issue of whether the wage increase is impossible only because the company's purchase agreement with its suppliers tend to keep raw material costs on an unnecessarily high level. Nothing even faintly resembling that situation may actually exist—but what management would stubbornly run the risk of having all details of its whole contractual relation scrutinized? Every single step management takes would have to be prejudged by one crucial question: *What will the union demand next, how much information may have to be disclosed, thereby nullifying the value of managerial discretion?*"

### Appraisal of Bill

This publication has not scrutinized the Norton-Ellender Labor Fact-Finding bill which is aimed at establishing fact-finding as the basis for settling wage disputes and reducing strikes. However, based upon observation of the general reaction of industry to the proposed legislation, and appraising results of fact-finding up to this time, the following estimate of the bill appears justified; "It neatly wraps into one bundle 'cooling-off' period for employes and disclosure of books for employers—both of advantage to labor rather than to industry. Experience with the 'cooling-off' provision of the Smith-Connally act proves that labor's passions rarely cool during the 30 days between certification and strike. The Smith-Connally act has demonstrated with tiresome regularity that the throw of the switch, starting the 30-day period, is the psychological fillip needed to make the union rank and file strike conscious. From that moment on they are girding themselves for the battle which will break as of a set date. By the time that day arrives they are mentally and emotionally ready to risk their all in a showdown with the employer.

"Moreover, aware of the struggle ahead, the rank and file cooperate with their leaders during these 30 days as they never did before to build up the strength of the union to its peak—soliciting funds from other unions, renting and furnishing strike headquarters, scheduling the manning of picket lines, arranging boycotts, obtaining support from the home-town merchants who will suffer if a strike breaks. Time and time again, confronted throughout a 30-day period with this very evident determination and methodical preparation for a strike, management has caved in on the 29th day and granted most of the demands."

If this is to be the pattern of fact-finding, it gets us nowhere and is bound to result in greater confusion than even its most vigorous opponents have imagined.

# Largest Pipe Line Bridge Completes Carthage Outlet

By HARRY A. HESS

## 142-Mile, 24-inch carrier from Texas field to Louisiana put in operation

WITH the completion of what is considered the largest pipe line bridge structure in the world, United Gas Pipe Line Company on December 10 put in operation the first major outlet for the Carthage gas field. This 142-mile, 24-inch pipe line extends from United's Carthage gasoline plant which is nearing completion to a point of connection with Tennessee Gas and Transmission's system near West Monroe, La. Another outlet from the line serves United's customers in the Monroe, La., area who were faced with curtailment due to the rapid depletion of the Monroe gas field. An accompanying map shows the course of the line and also the main features of interest.

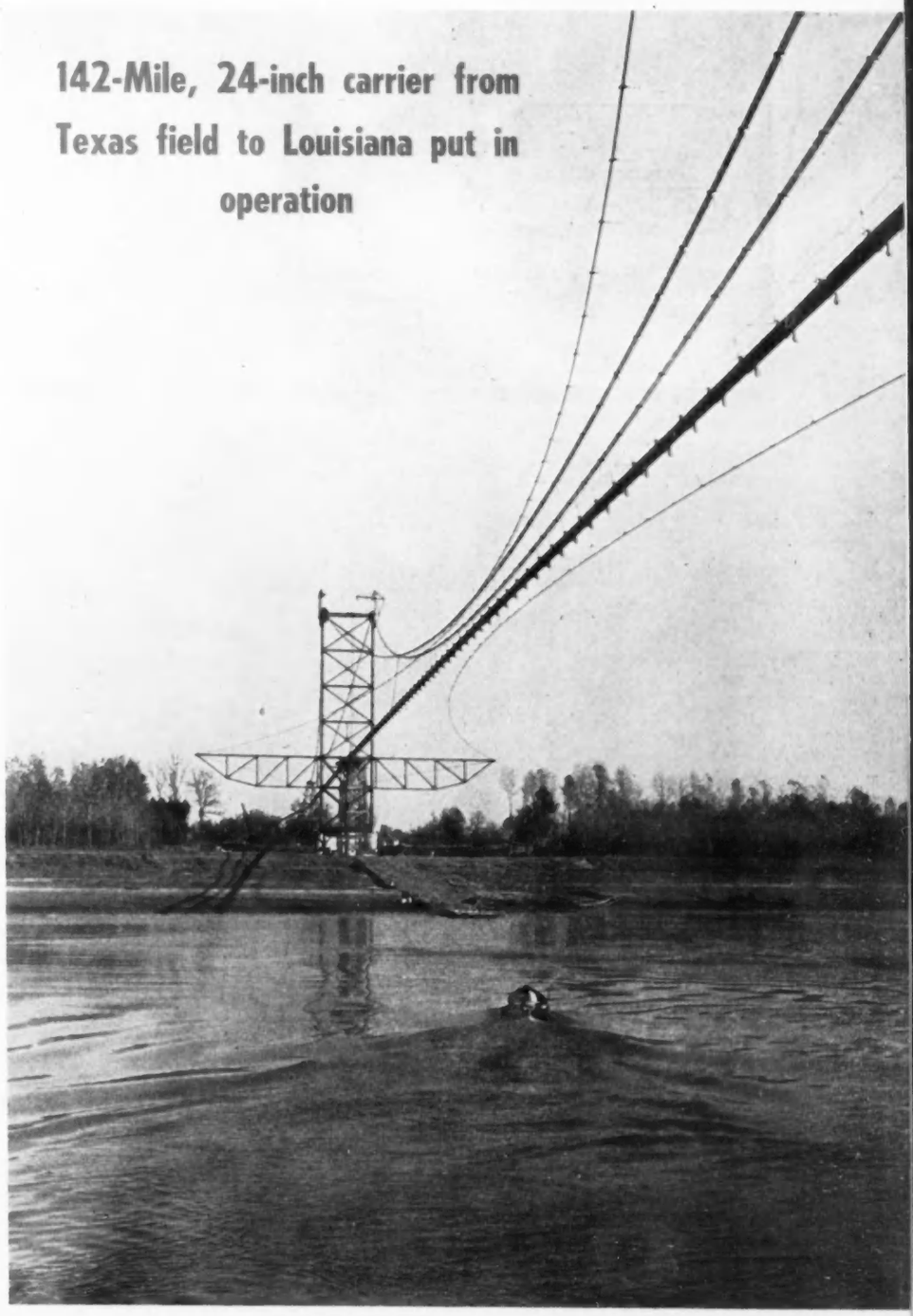
The specifications set forth herewith show the size of this structure, which an extensive search has indicated to be the largest pipe line bridge in the world. Comments on any pipe line bridge which is thought to be longer, wider, or higher will be appreciated. The total elevated section of pipe, or the distance between rest towers is 3200 feet with a distance of 1600 feet between the main supporting towers. Another 422 feet on each side separates the rest towers from the anchors, making an overall length of 4040 feet between the anchors. The two main towers consist of built-up structural steel sections which rise 170 feet above the high bank of the river; the foundation extends 97 feet below a corresponding point. The substructure is comprised of two 13-foot diameter by 50 feet long steel caissons, sunk by the open construction method to a point below the bed of the river. Into the bottom of each of these shafts, 20 H-beams 58 feet long have been driven 50 feet below the bottom of the steel caissons. The caissons were then filled with concrete, reinforced with steel around the eight feet of H-beams which protrude above the bottom of the caisson. Wind arms extend 107 feet each way laterally from the center line of the main towers.

### Rest Towers

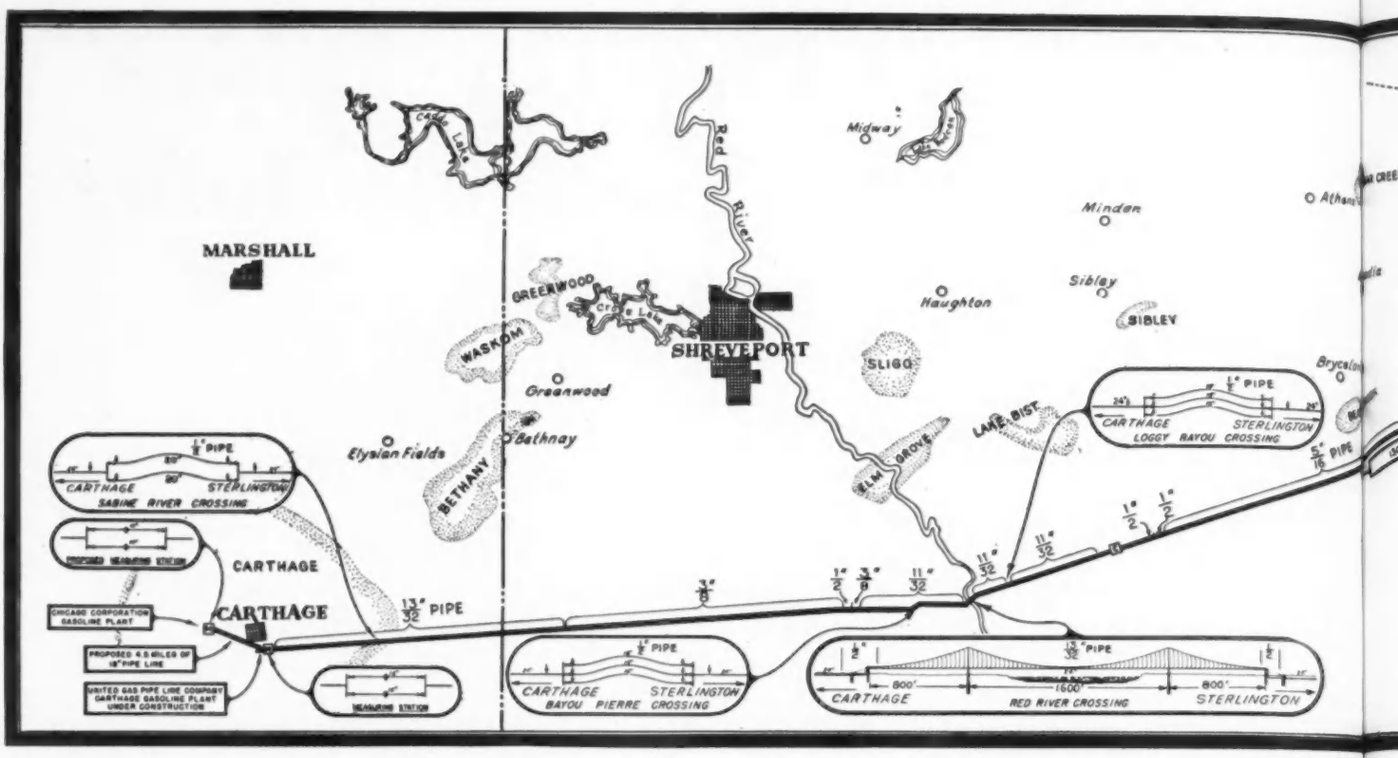
The rest towers, 26 feet wide at the bottom and 70 feet high, are superimposed on concrete pedestals landed on steel piling which have been driven 95 feet below ground level. Subfootings were excavated to a depth of ten feet and eight H-beams were driven to refusal in the bottom of each pit, and then concrete was poured to form the pedestal for the structure. The size of the rest tower dwarfs the 12-foot wide by 8-foot high United Gas Emblem superimposed on top.

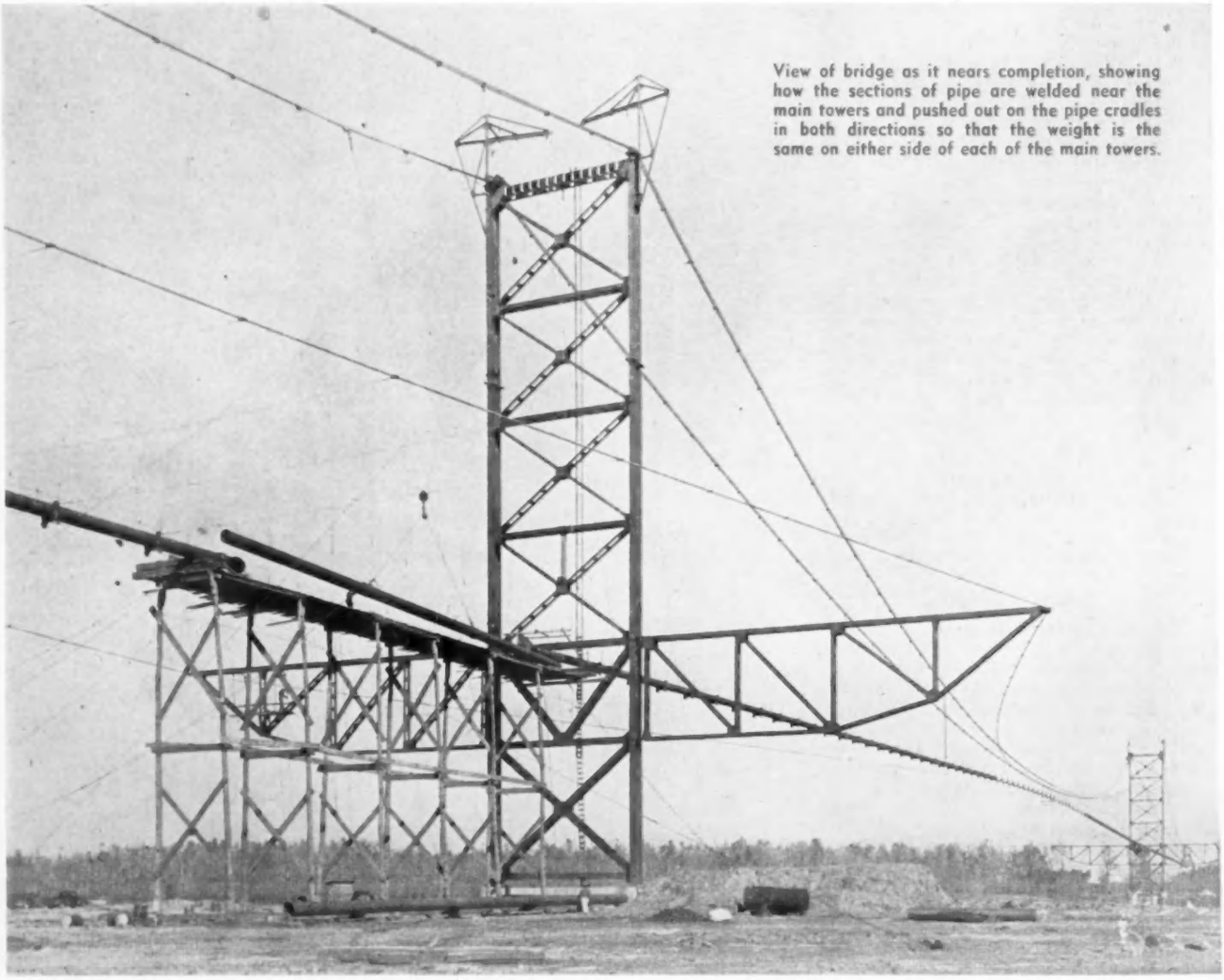
The main cable anchors (or "dead men" to the pipeliner) consists of 950

■ CONTINUED ON PAGE 38
Also see Photos, Maps and Diagram on 34, 35, 36, 37

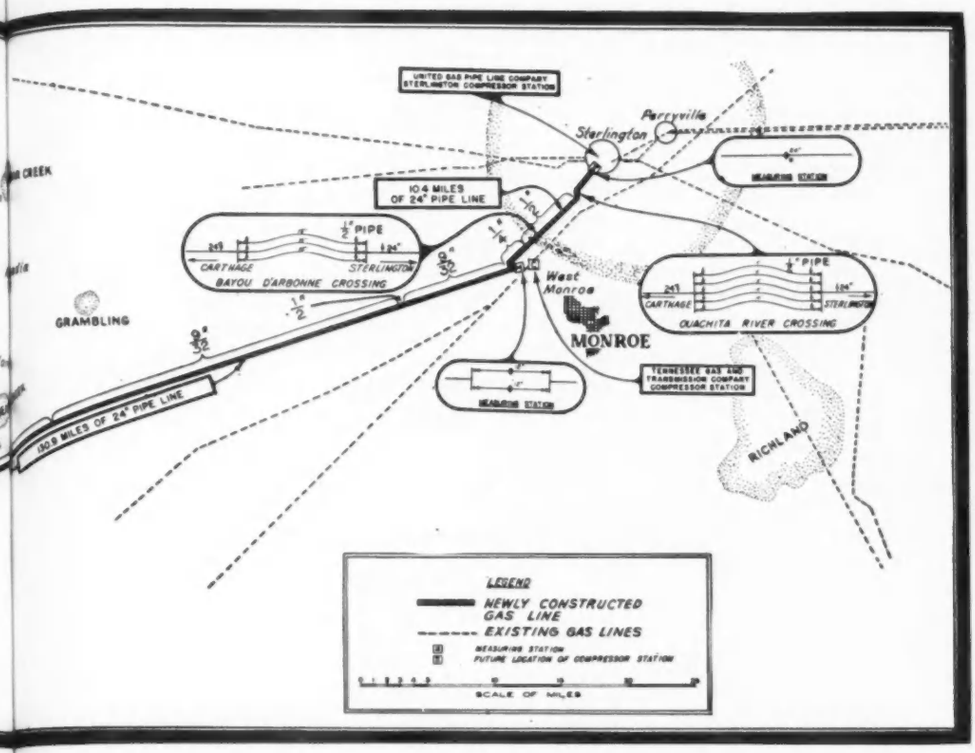


**Located at East Point, La., where United Gas Pipe Line Company's new Carthage-Sterlington pipe line crosses the Red River, this bridge is believed to be the largest of its kind in the world. The suspension bridge was constructed with a 3,200-foot elevated section and a 1,600-foot clear span. The pipe line, built at a cost of approximately $7,500,000.00 to meet increased demands for postwar expansion, will afford a new outlet for natural gas from the Carthage, Texas, gas field.**

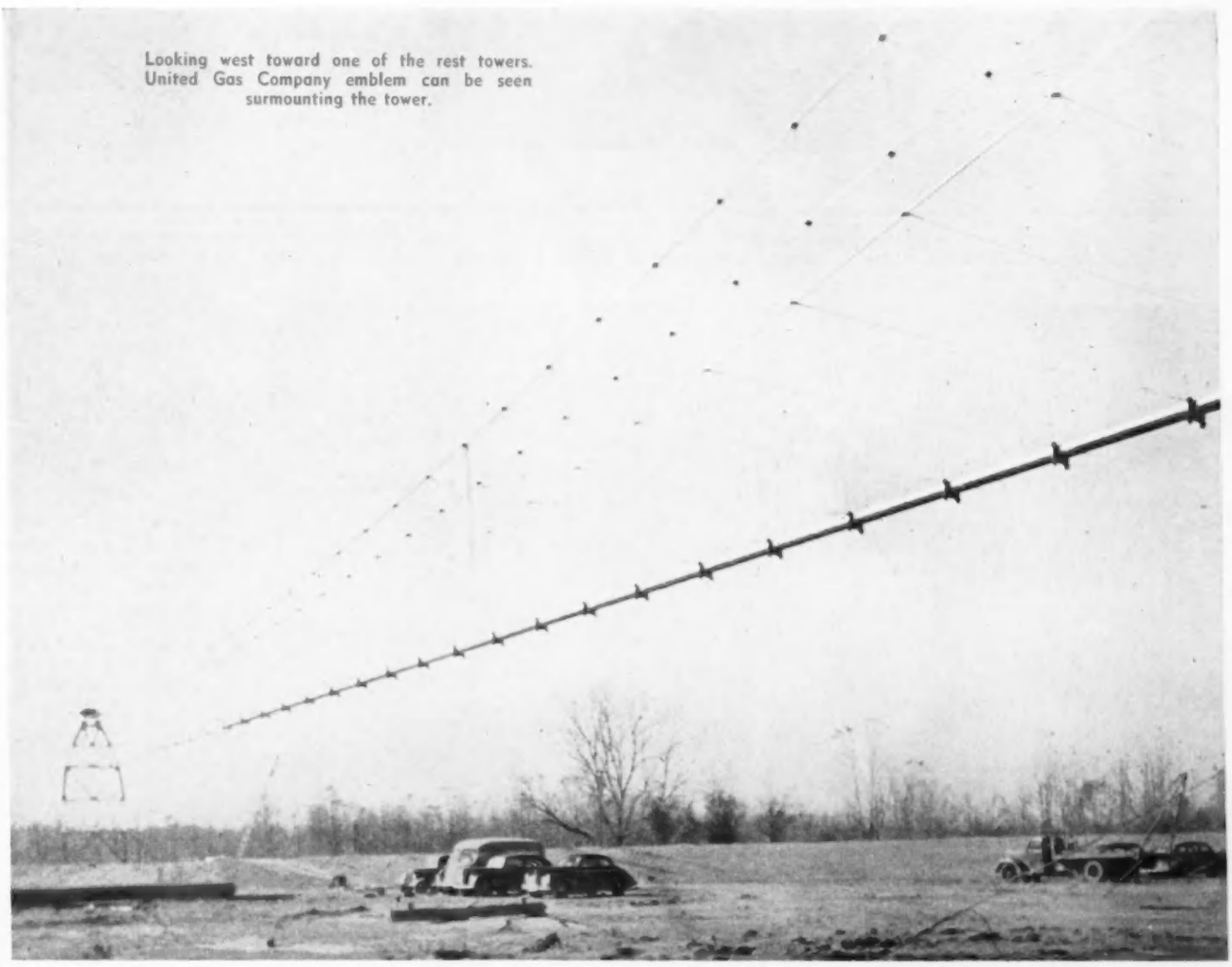


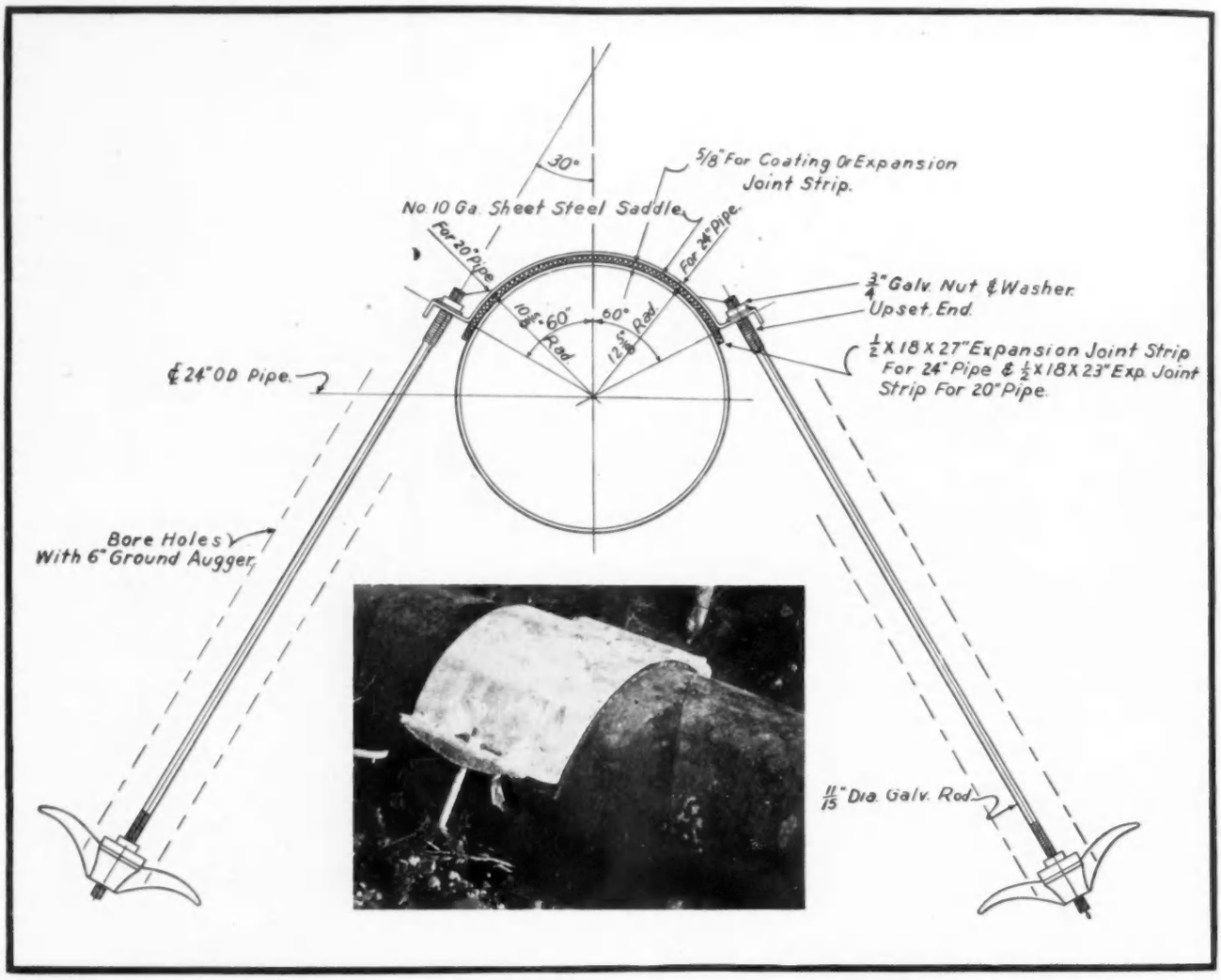
View of bridge as it nears completion, showing how the sections of pipe are welded near the main towers and pushed out on the pipe cradles in both directions so that the weight is the same on either side of each of the main towers.




Map of territory traversed by the pipe line, showing river crossings, measuring stations, and proposed compressor station. Note that the thickness of pipe is reduced as the line pressure decreases, except where the line traverses corrosive soil and flooded areas. Here the pipe thickness is increased to ½ inch in order to combat the effects of corrosion and also to add additional weight to the pipe to prevent floating. Capacity of line is 310 million cubic feet per day with field pressure of 1000 pounds per square inch and an outlet pressure of 500 pounds per square inch. With the addition of an 8000-horsepower compressor near the midway point, the capacity can be stepped up to 395 million cubic feet.



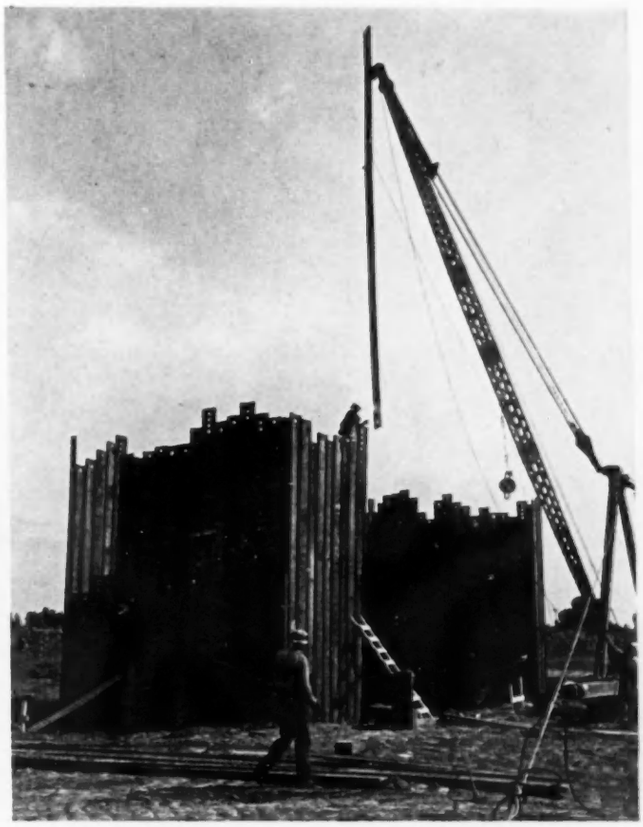
Looking west toward one of the rest towers. United Gas Company emblem can be seen surmounting the tower.


30°
5/8" For Coating Or Expansion Joint Strip.
No. 10 Ga. Sheet Steel Saddle
For 20" Pipe
For 24" Pipe
3/4" Galv. Nut & Washer
Upset End
10 3/8" 60° Rod
60°
12 3/8" Rod
1/2 X 18 X 27" Expansion Joint Strip For 24" Pipe & 1/2 X 18 X 23" Exp. Joint Strip For 20" Pipe.
℄ 24" OD Pipe.
Bore Holes With 6" Ground Auger
11/15" Dia. Galv. Rod

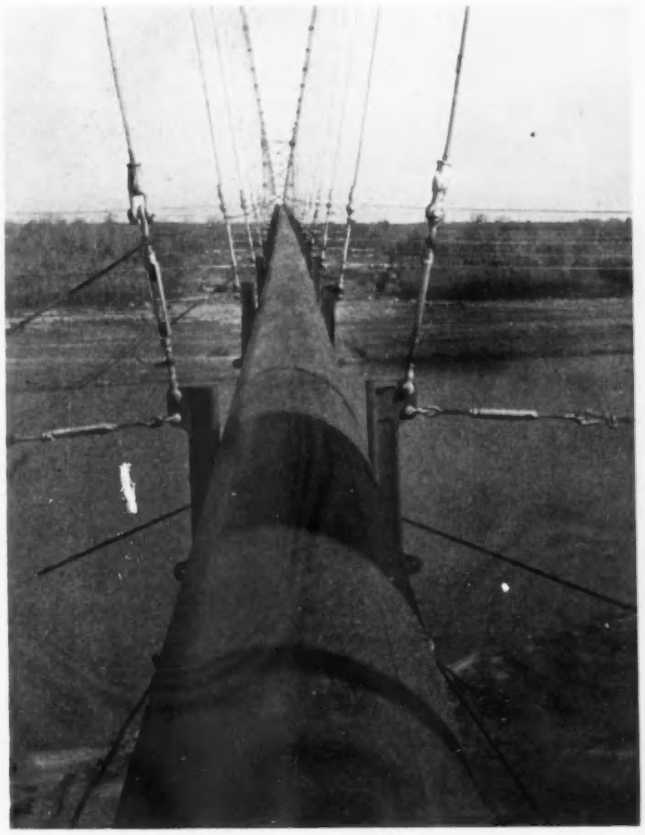
Where the ground is firm in flooded areas, instead of using river clamps, the pipe was prevented from floating by means of expanding anchor rods which were placed in holes bored at 30 degrees from vertical. Expansion joint material was used to protect the pipe coating.

Looking down a caisson after it has been dewatered. Tops of the H-beams which have been driven 50 feet into the ground below the bottom of the caissons show between the workmen.

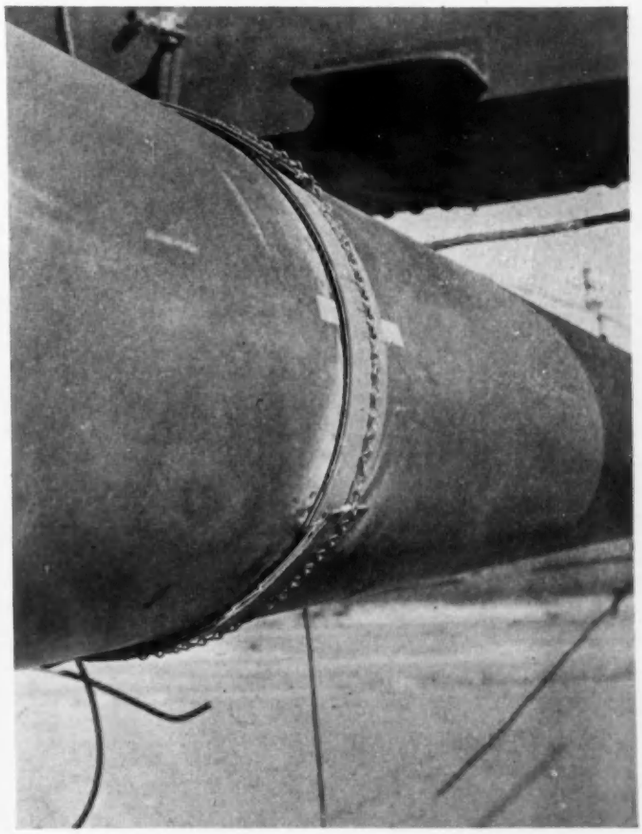
Installation of the section between the end of the line and the elevated section. End of the line is at lower right, with the bridge under construction in the background. Support for the leg as it rises on an angle to the rest tower shows above the fore end of the swinging section.



View showing the interlocking arrangement of the sheet piling which is driven 20 feet below the bottom of the 20-foot-thick concrete.



The line as it passes 56 feet above high water level of the Red river.



Strips of X-ray films are clamped to the pipe and exposed to a radioative material which is thrust into the pipe for a 20-minute interval.

View along the line showing one of the numerous wet spots in the background.

## *Largest Pipe Line Bridge*

■ CONTINUED FROM PAGE 33

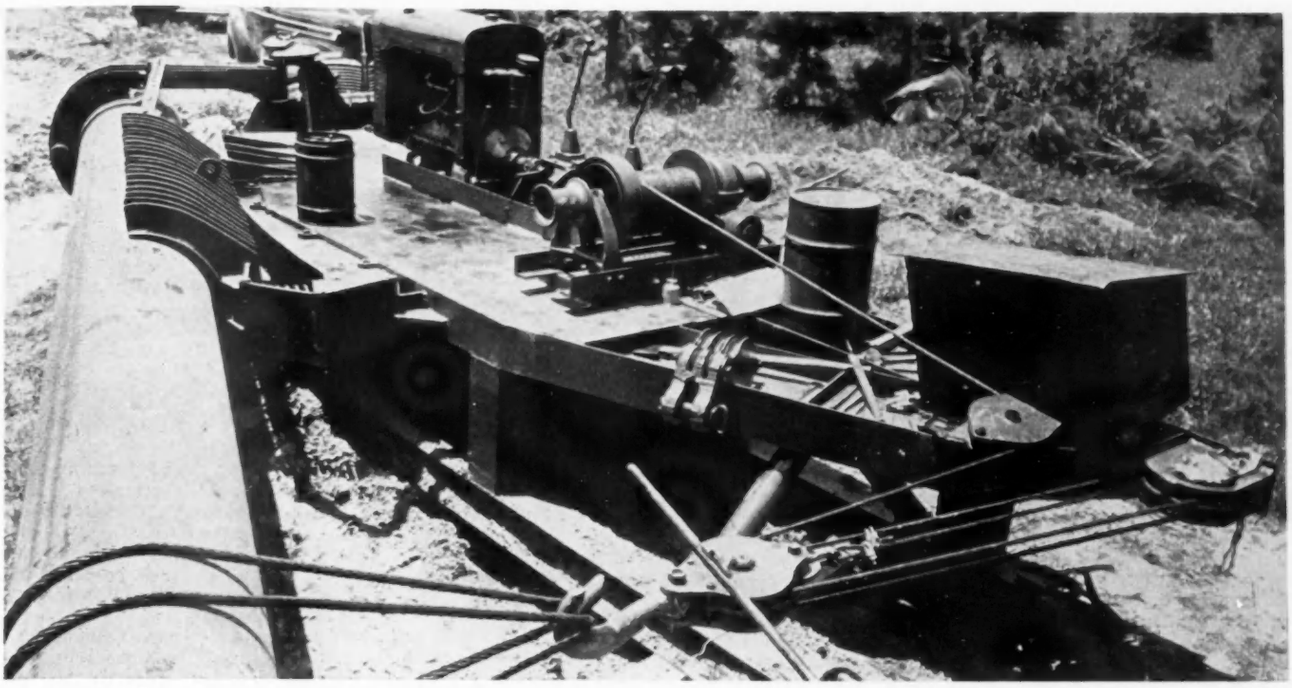
cubic yards of concrete each filling a space 22 feet wide by 58 long by 20 deep. The concrete is held in place by a continuous interlocking wall of ⅜-inch steel sheet piling which was driven to a depth of 40 feet after the location was excavated. To the anchor is attached the main supporting cables comprising two sets of three each 2⅝-inch, 7 by 19 galvanized bridge cables and also the wind cables which consist of a single strand of 2¾-inch bridge cable. The cables are attached to orthodox pipe cradles at intervals of 20 feet. All welds in the pipe line over the bridge were inspected by both the magnaflux method, and radium photographs.

### Aircraft Warning Lights

The structure will be fully protected by aircraft warning lights in accordance with the requirements of the Civil Aeronautics Administration. Each of the main towers will be equipped with two 500-watt flashing beacons. The side spans will each have dual red lights at the half points. The 1600-foot span will have dual red lamps at the quarter points. Lamps will also be mounted above the company emblem on the rest towers. All lights will be controlled by a photo-electric cell which will turn on the lights at a predetermined degree of darkness.

Other features of construction of this gas line are worthy of note. The design of long pipe lines becomes more and more complex as engineering factors are taken into consideration. Since the Carthage gasoline plants will operate at pressures above 1000 pounds, full advantage of this pressure is utilized by making the pipe thicker on the west end and thinner on the east, thus postponing the installation of a compressor station at the midway point. With a 500-pound outlet pressure, and a 1000-pound inlet pressure, the line will have a capacity of 310 million cubic feet per day and this can be raised to 395 million cubic feet by installation of an 8000-horsepower compressor station near the midway point. Rather than streamline the pipe thicknesses strictly in accordance with the pressure drop, the engineers also have taken into account the fact that thicker pipe is worth the additional cost where marshy areas are traversed by the line. In the first place, the swampy sections are also hot spots as far as corrosion is concerned, and also additional weight must be added to the pipe to prevent it from floating. Therefore, the thickness was increased through the many swamps and bayous of Louisiana. River clamps were also used in the areas that are subject to flooding, and many of these were made of precast concrete. In areas where the ground is firm, an anchor borrowed from the oil derrick guy wire anchor industry was used. After the pipe was placed in the ditch, a post hole was dug at an angle on either side and expanding anchors were placed at the bottom and connected to a saddle affording a large bearing area which had been formed to fit over expansion join material around the pipe. This is illustrated in an accompanying photo.

The enamel coated section of the main



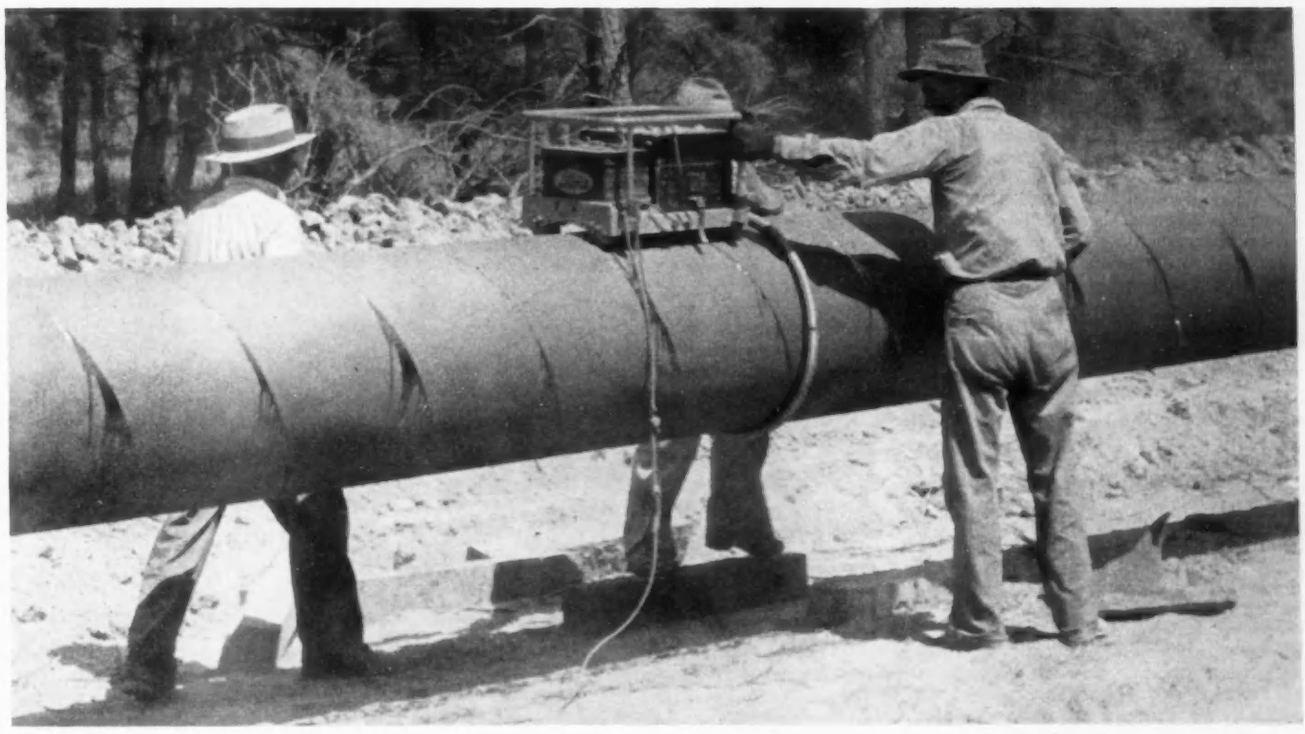
**One of the "wrinkles" on this job is the pipe bending machine. Smooth bends can be made on 24-inch pipe with ⅜-inch or greater wall thickness. Wrinkle bends are employed on pipe thinner than ⅜-inch.**

line (132 miles) was coated and wrapped over its entire length with field coating and wrapping machines. A matted glass fiber in 18-inch wide rolls was used on one section of the line which was then covered with kraft paper. Approximately ten miles of the main line was coated with Somastic. All enamel coatings were inspected by a electronic holiday detector which carries high voltage across the pipe coating. When a defect in the coating is encountered by the rolling coiled spring exploring electrode, the instrument flashes a red light and rings a bell. The two men who operate this electrical inspection equipment at the speed of a slow walk, then mark the spot, the wrapping is removed and the holiday is repaired by hand. A minimum of breaks was found in the coating, due to the careful handling of the pipe and the vigilance of the coating and wrapping crews and inspectors. Further protection from corrosion was attained by electrical insulation of the line between main line valves, but no cathodic protection is being planned at this time due to the other measures that have been taken.

Other river crossings beside the Red River suspension bridge were made in the usual multiple line construction and are shown on the accompanying map.


### Acknowledgment

*Many employes of United Gas Pipe Line Company gave willingly of their time in supplying data. The author especially wishes to acknowledge the kind assistance of D. E. Stearns and Carroll Smith of the Engineering Department, and O. C. Irvine and H. O. Wiseman of United Gas Log.*

**The holiday detector is pulled along the pipe to find defects in the coating.** —Several photos in this article courtesy United Gas Company.

# Western Oklahoma's Prospects Bright

By ANTHONY GIBBON, Staff Writer

OIL operators are preparing for an intensive drilling campaign in Western Oklahoma. The boom may not come this year but may develop gradually until it reaches important proportions and the vast, undeveloped province which embraces most of the Anadarko Basin becomes dotted with derricks and the names of new and important oil and gas pools.

A check of county records reveals large acreage concentrations held by many major oil companies. Millions of acres in a score of counties are checkerboarded over the western half of the state from Oklahoma County to the Oklahoma Panhandle as oil men prepare for the next phase of the development of Oklahoma's oil resources.

With one or two exceptions, active drilling in wildcat areas has been confined mostly to the eastern fringes of Western Oklahoma. The possibilities of developing new oil fields along the western rim of the Nemaha Ridge are by no means exhausted and for some time to come the arc formed by this major geological feature which extends from Grant and Kay counties on down through Garfield, Kingfisher, Oklahoma, McClain and Cleveland counties will continue to demand the greatest attention.

### 40 New Fields

During the first ten months of 1945 approximately 40 new oil and gas fields as well as new pays and extensions were found in that part of Oklahoma lying west of the Indian Meridian. Oklahoma County led in discoveries with ten new pools and extensions opened on structures and stratigraphic traps whose occurrence were, broadly speaking, influenced by geologic phases resulting from genetic movements reflected from the Nemaha Ridge.

In Stephens County, where the Wichita Mountains influence structural conditions, six new pools and pool extensions were found.

Nineteen counties in Western Oklahoma figured in new discovery statistics and while more new oil and gas pools and extensions were reported in the eastern part of the state, the strikes in Western Oklahoma were significant inasmuch as they included discoveries on structures which are acknowledged to cover larger areas and which contain thicker oil and gas producing sections. Discoveries included Cities Service Oil Company's Lawson 1 in McClain County, deepest producer in Oklahoma at 10,995 feet which opened the Lindsay North pool where producing sands are estimated to be more than 100 feet thick.

Counties in Western Oklahoma where new oil and gas pools and extensions were discovered during the first ten months of 1945 include Kiowa, Stephens, Tillman, Oklahoma, Garfield, Texas, Greer, Cleveland, Garvin, McClain, Kingfisher, Carter, Caddo, Beckham, Cimarron, Jackson and Major.

Exploration and development in Western Oklahoma will be influenced largely by the results of geological and geophysical studies of the Anadarko Basin which embraces most of the region and which may be described as a large synclinal feature extending southeast-northwest and including all or part of ten counties east, northeast, north, northwest and west of the Wichita Mountains.

The head of the Basin is located in northeastern Stephens County, a few miles northwest of the west end of the Arbuckle Mountains. From this point the axis of the Basin extends northwest for a distance of about 150 miles into northern Beckham and southern Roger Mills counties where it can no longer be identified, although it is possible the structural trough extends across the state line and into the Texas Panhandle.[1] Toward the axis of the Basin the rocks dip from both sides, the dips on the south in the vicinity of the Wichita Mountains being steeper than on the north side.

In northwestern Oklahoma and adjacent areas the regional structural feature represents a monocline sloping southward toward the Wichita Mountains and the Amarillo Uplift. Extending northwest and southeast through Beaver, Harper and a part of Woodward counties there is an area of Permian exposures occurring at higher levels than do the same formations on either flank. Evidence of deep-seated folding exists in this area, where the Permian is underlain over a considerable section with salt, gypsum, anhydrite and limestone. There is regional tilting of the beds. Some of the more nearly symmetrical anticlines occurring may have been formed by deep seated forces. Some of the dips and folds in the Permian beds were initiated previous to Lower Cretaceous time.[2]

Some geologists believe the oil and gas found in the West Texas Permian Basin adjoining the Amarillo Mountains migrated into the anticlinal folds from the Anadarko Basin, and this is supported by the fact that all the important oil fields of the Texas Panhandle lie on the flank of the arch towards the Anadarko Basin.

Many geologists who have worked in Oklahoma predict that Western Oklahoma will surpass the brilliant oil-producing record established by the eastern portion of the state. However, they admit that development will be slow because of a lack of geological control. Unlike the eastern half of the state, Western Oklahoma presents many difficult problems to the geologist. Pronounced surface structural features are lacking in most of the counties lying well beyond the western division line. While the vast Anadarko Basin has been fairly accurately defined and its potentialities for oil and gas recognized, the task of finding good drilling sites is difficult; more so than was the case in Eastern Oklahoma where structures out like the proverbial "sore thumb." Producing sands, too, were found at what today are considered comparatively shallow depths. Vast blankets of sedimentation and deposition in Western Oklahoma obscure the geological picture and in some instances make seismologic exploration extremely uncertain. But these are obstacles which exist only to be overcome. An intensive exploratory campaign is, and has been, under way in the western half of the state for some time.

During September seismic and subsurface prospecting was reported in 21 counties. A year ago crews were working in 28 counties of Western Oklahoma. During that month a check revealed that 47 units were in the field as compared with 38 a year ago. These included 32 seismograph crews, five core drills, seven gravimeters, one torsion balance and two magnetometers. Crews were reported in Grady, Woods and Garvin counties. Core drilling was being carried on in Woodward County in the heart of the Anadarko Basin. Seismograph parties were working in Alfalfa, Washita, Custer, Jefferson, and Grady counties and gravimeter units were at work in Dewey, McClain and Grady counties. Major County, where The Superior Oil Company of California opened the Ringwood pool, considered the first important oil discovery in the untested heart of the Anadarko Basin area, reported two gravimeter crews at work.

With few exceptions all productive sands found in the eastern part of the state will be found in Western Oklahoma and sections are expected to be thicker and more prolific, although much deeper. Especially attractive are the sands in the Pennsylvanian system. Hopes are entertained that the deeper Ordovician sands will be found in thick bodies within the Anadarko Basin but estimates as to depth range from 10,000 to 15,000 feet and even deeper. Before these sands can be tapped and produced economically, further technological advances must be made in drilling equipment. Wartime discoveries and improvements, especially in the realm of metal alloys, may speed the time when the 15,000-foot well will become

# New Oil, Gas Fields, New Pays and Field Extensions Found in Western Oklahoma in the first ten months of 1945

NEW OIL FIELDS

1. Hobart, Kiowa County
3. Southwest Burt, Tillman County
4. Bethany, Oklahoma County
5. New Garber, Garfield County
7. Claud, Stephens County
8. Lake Creek, Greer County
9. West Corbett, Cleveland County
11. Coffee Creek, Oklahoma County
12. North Barnes, Garfield County
13. Hoover Northwest, Garvin County
18. Chitwood, Grady County
21. West Marlow, Stephens County
24. East Antioch, Garvin County
28. South Frederick, Tillman County
31. Evansville Northwest, Logan County
32. (Unnamed) Oklahoma County
33. South Marlow, Stephens County
34. North Lindsay, McClain County
35. South Polo, Noble County
36. North Bethany, Oklahoma County
37. Cashion Northwest, Kingfisher County
38. East Brown, Garfield County
39. (Unnamed) Cimarron County
40. East Haltus, Jackson County
43. Ringwood, Major County

NEW GAS FIELDS

15. North Cruce, Stephens County
17. (Unnamed) Kay County

OIL FIELD EXTENSIONS

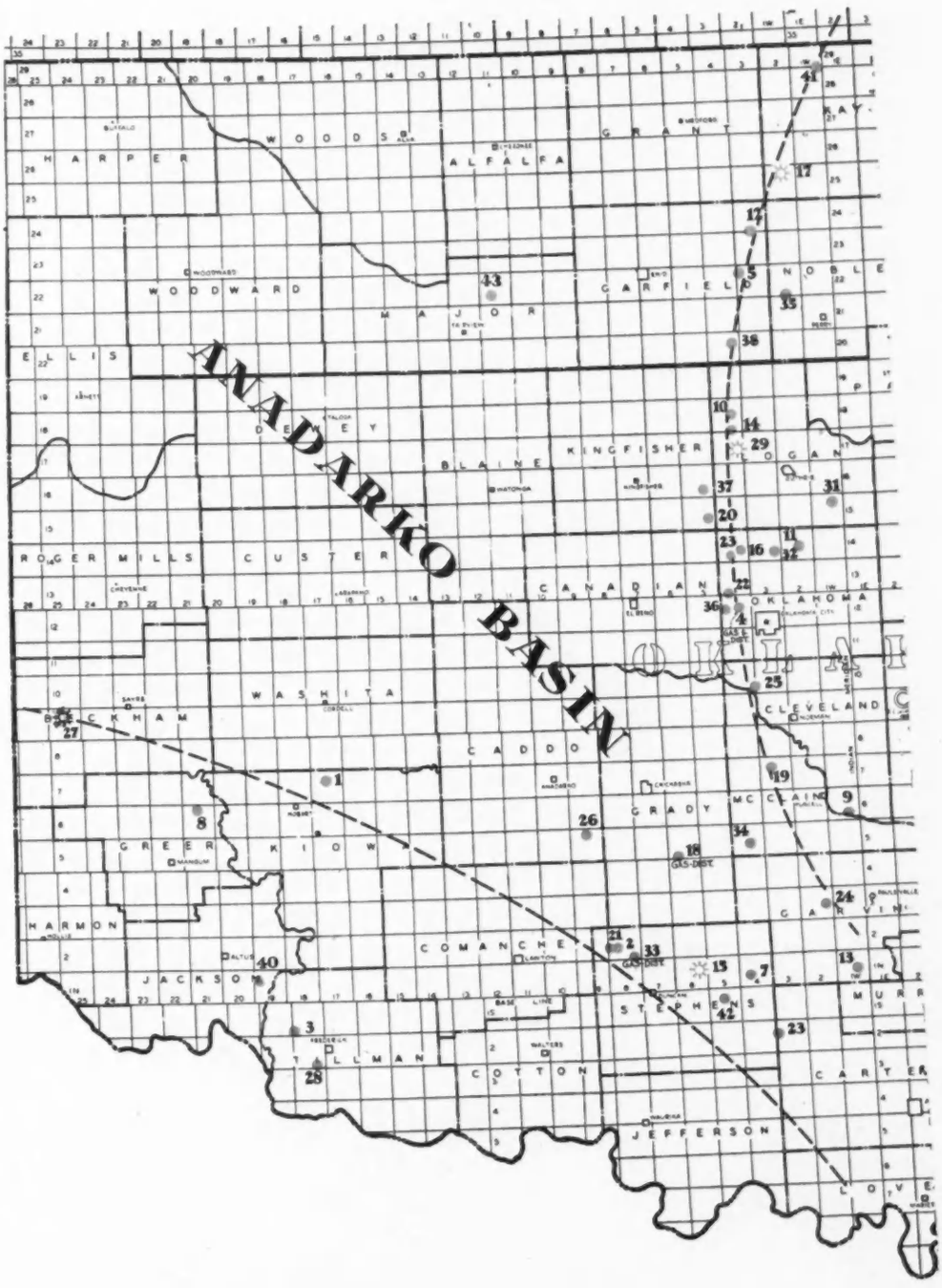
2. West Marlow, Stephens County
10. Hull, Logan County
14. Lovell, Logan County
16. West Edmond, Oklahoma County
19. Washington, McClain County
20. West Edmond, Kingfisher County
22. West Edmond, Oklahoma County
23. Crescent, Carter County
30. West Edmond, Oklahoma County
42. Velma, Stephens County

GAS FIELD EXTENSIONS

6. Hugoton, Texas County

NEW PAYS

25. West Moore, Cleveland County
26. Cement, Caddo County
27. Erick (gas), Beckham County
29. Crescent, Logan County
41. Dilworth, Kay County



as commonplace as the 8000-foot well is today.

Discovery of oil in Cimarron County by The Pure Oil Company's State 1, about three miles northwest of the small Keyes pool, is attracting attention to the Oklahoma Panhandle and geologists believe that important new strikes are iminent there. This area has been dominated by the Hugoton gas field but students of the region see no reason why it should not yield oil in large quantities. Pure's State 1, rated better than 90 barrels a day from the Cimarron sand at 4786-90 feet, opens a new territory for development and further exploration. An extension to this new strike appears certain at Pure's Johnson 1, 12-5n-7ecm, about a mile south and west of State 1, which found saturated Cherokee sand from 4846-61 feet.

### Beaver County Prospects

Beaver County, which is void of production, may join the list of Oklahoma producing counties within the next year or two as several operators have taken and are continuing to maintain blocks on which tests may be drilled. Barnsdall Oil Company has an isolated block of 5100 acres near Gary in Township 1n-21ecm with Sohio Petroleum Company owning a half interest. The Texas Company holds a 7200-acre spread, partly blocked, in Township 5n-20ecm. Immediately north in Township 6n-20ecm, Stanolind Oil & Gas Company holds a 3500-acre block.

Northeast of the town of Beaver, Cities Service Oil Company has a five-section concentration in Township 4n-25ecm, many of the leases having been taken for terms running to 1960. S. L. Parks has a block of approximately 4500 acres north of Floris in Township 5n-25ecm.

Drilling in Beaver County will undoubtedly be influenced by Stanolind's recent gas discovery on the big Adams ranch in the extreme southwest corner of Meade County, Kansas. Operations in the county have been scattered and most of the wells were drilled in the '20's and ranged in depths from 500 to 4000 feet. Beaver County operations which may be carried to depth will produce valuable subsurface information concerning the geology of the Anadarko Basin as the county is strategically located on this important geological feature.

Woodward County in Northwestern Oklahoma is due for some development as several operators are reported strengthening their lease positions there, especially around The Ohio Oil Company's 3000-acre block east of Quinlan. Ohio added 360 additional acres of five-year leases and has solidified its concentration through Sects. 13, 14, 22, 23, 24 and 27, Township 23n-17w. Two dry holes have been drilled on the block, one to 4269 feet and one to 7430 feet in Section 23. Woodward County adjoins Major County on the west and Superior's strike at Ringwood has attracted considerable attention to the area.

Harper County, in the same general area, will be a good proving ground for Anadarko Basin producing possibilities. Phillips Petroleum Company has a 3800-acre lease block in the southeastern corner of the county under which royalty has been bought almost as heavily as under many wildcat blocks in more proven oil regions. This concentration lies in Sects. 23, 25, 26, 27, 34, 35, and 36, Township 25n-20w.

Future deep drilling will undoubtedly unfold the geologic pattern in Western Oklahoma but it will be some years before a fairly accurate picture is available. Geologists believe that when the picture unfolds it will be found that stratigraphic traps and lensing conditions will account for much, if not most of the oil to be found in that region, influenced largely by sedimentary conditions in the Anadarko Basin. One of the important strikes of the last three years was made at West Edmond where stratigraphic trap has been developed into Oklahoma's most productive oil field expected to yield as high as 300 million barrels of oil. This pool placed the Hunton lime in the category of an important oil-producing formation. Prior to the discovery of the West Edmond pool the Hunton lime was not considered a prolific oil producer in Oklahoma. Since the pool was opened, other important Hunton lime discoveries have been made. Completion late in September of Phillips Petroleum Company et al's Jirick 1, CSW SW 26-16n-5w, opened the Cashion Northwest pool in Kingfisher County, another important Hunton lime reserve. This discovery flowed 153 barrels of oil in 24 hours through 3/32-nd-inch choke from perforations at 7064-95 feet.

Proof that the Hunton lime zone is a prolific oil producer will influence future activities in Western Oklahoma, especially along the western rim of the Nemaha Ridge where the peculiar conditions attendant to Hunton lime and stratigraphic trap accumulations obtain.

### Marlow-Duncan Area

The Marlow-Duncan area of northwestern Stephens County which includes the West Marlow pool activity and the South Marlow gas-distillate discovery of Gulf Oil Corporation, should see considerable development for some time to come. Gulf's discovery, Briscoe Estate 1, in Sect. 36-2n-8w, established a potential of 78½ million cubic feet of gas per day with 17 barrels of distillate per million. No additional locations have been announced but the area undoubedly will be developed as soon as pipe line facilities have been provided.

E. P. Halliburton and Mudge Oil Company staked a 7500-foot test on a 3200-acre block in Township 1n-7w. The Texas Company stepped out a mile west of West Marlow production to stake Medearis 1, 18-2n-8w, and Ohio has the south offset to this location.

A deep test in Canadian County, although abandoned as a failure, revealed interesting data which will lead to further drilling. The test was J. E. Trigg et al's Tennery 1, in 22-13n-7w, abandoned at 10,731 feet, but considered favorable to the Anadarko Basin outlook since it showed for from 2 to 3 million cubic feet of gas in the Dolomite and Second Wilcox zones, formations which are expected to produce much of the future deep oil in Western Oklahoma.

Shell Oil Company recently took assignments on approximately 24,000 acres of leases through western Washita and eastern Beckham counties, about four miles south of Elk City. The spread includes a lease on which Continental Oil Company drilled a dry hole to 14,582 feet in 28-10n-20w, in 1929. Geophysical surveys in the general area are said to have revealed five deep seated prospects.

Gulf is also engaged in an intensive geological and geophysical study of Western Oklahoma and this company should be ready shortly to drill several important tests which will contribute to the general knowledge of the area.

### Grant County Prospects

Grant County should witness some development during the next few months. East of the Lamont pool H. D. Hurst and C. L. Carlock assembled a 2500-acre block in Township 25n-3w. Extensive core drilling and seismograph work has been done in the area during the past few years. The Lamont pool was discovered by The Carter Oil Company and produced oil and considerable water from the Wilcox sand. Several major companies have maintained leases adjoining the southeast edge of the Hurst-Carlock block. Eight miles northeast of the Hillside pool, S. M. Stauffer of Oklahoma City is scheduled to drill an interesting wildcat in 9-25n-7w, projected to the Wilcox.

Woods County appears destined for important development during the next year or two. Some major oil companies and several independents have assembled large blocks in the area. Champlain Refining Company has a concentration of more than 28,000 acres in Township 28n-18w; Phillips has leases covering about 18 sections in 26n-15w; Leach and Warren of Tulsa have a 7000-acre block in 25-15w; Stanolind has blocks in 26n-16w and 26n-17w; Pure has a block adjacent to the town of Alva in 27n-14w.

Located on the northern rim of the Anadarko Basin, Woods County offers an opportunity to the smaller operator to develop the oil and gas resources which the Basin is believed to possess. Parts of the county are in the so-called Bois D'Arc Hunton belt and the success at West Edmond must inevitably lead to further prospecting wherever there is a chance to develop oil in this horizon. Especially attractive to the smaller operator is the fact that the Ordovician measures may be tested at depths not to exceed 8000 feet. Several wells have been drilled in Woods County with fairly good showings reported in the Pennsylvanian sands. Actually, the area has not as yet received adequate attention but it undoubtedly will play a big part in future development in Western Oklahoma.

Superior, which opened the Ringwood pool to give Major County its first commercial production, is acquiring a lease spread through Caddo and Washita counties which is expected to total about 50,000 acres. The campaign is being carried on in nine townships and extends over an area 36 miles long by from six to 12 miles wide, running north from Ft. Cobb in Caddo County and veering northwest to Weatherford in Washita County. Superior also recently acquired an 8000-acre block in Township 8n-7w, north of Chickasha in Grady County. L. S. Youngblood also has built a sizeable concentration north of the Cement pool. Tests along this northwest-southeast trend will reveal valuable subsurface data as they will be located in the heart of the Anadarko Basin where producing sands are expected to thicken and where the Pennsylvanian, Mississippian and possibly the Ordovician sys-

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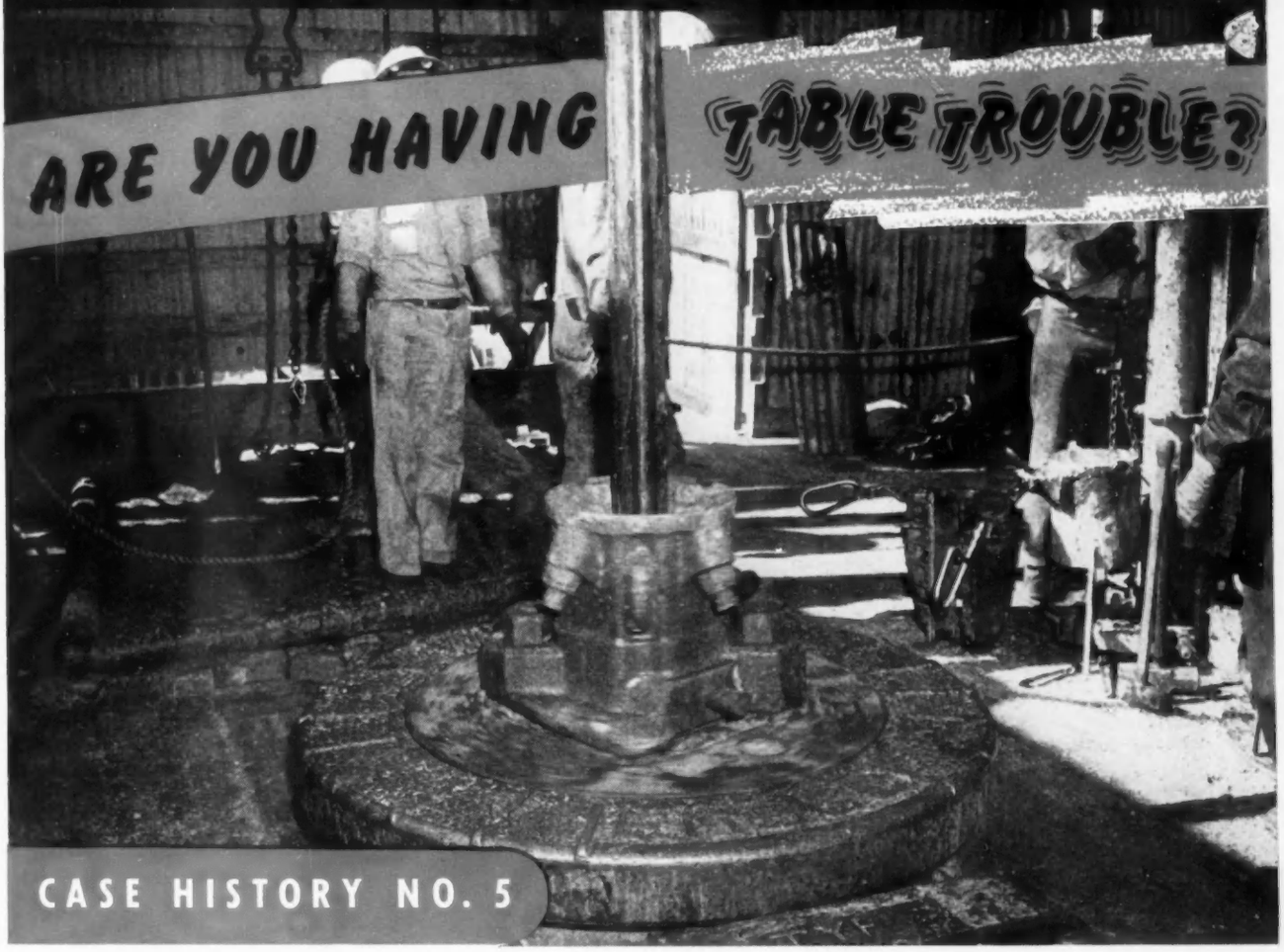
TRAVELING BLOCK BUMPERS • TUBING PROTECTORS • SUCKER ROD WIPERS • TUBING WIPERS

# ARE YOU HAVING TABLE TROUBLE?



## CASE HISTORY NO. 5

A prominent Northern Louisiana operator was having trouble with bit bouncing, excessive pipe vibration and securing proper rotating speed. He thought his table was worn out, so he ordered and was waiting for a new table. His local Patterson-Ballagh representative suggested that the drill pipe in the casing be fully protected with Patterson-Ballagh casing protectors at each joint as a possible cure for these troubles.

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tems will be tested. Wells in the general area should be projected to 10,000 feet or deeper and must necessarily require considerable expense and careful drilling with the most modern rigs available if they are to succeed.

Skelly Oil Company's deep gas pay discovery in the old Erick gas pool in Beckham County undoubtedly will result in further exploration in that area where the Arkosic limestone of lower Pennsylvanian age has been proved highly productive in Western Oklahoma. Skelly's Baldwin 1, 10-9n-25w, was completed for 22 million cubic feet of gas daily from 6786-6810 feet. The Erick pool originally produced only from the Permian at 2400 feet. Prospects for the opening of important new gas reserves at deeper horizons make Beckham County an attractive area and some geologists are of the opinion that the county, which so far produces gas only, will some day become an important producer of oil. Drilling on the northern flank of the Wichita Mountains must necessarily be deep since the formations dip in that direction towards the Anadarko trough, and Ordovician measures will not be reached before 12,000 feet or even deeper. Because of the depth factor, development in that section of Western Oklahoma will necessarily be slow.

### Grady County

Swinging eastward to Grady County where Magnolia Petroleum Company opened the Chitwood pool early in the year, a heavy leasing and royalty play assures the area between the Knox oil pool and the big Chickasha gas pool a period of activity which will probably result in the discovery of important oil and gas reserves. Magnolia's Cunningham 1, in 33-5n-6w, initially tested more than 95 million cubic feet of gas plus 250 barrels of distillate per day from the lower Pennsylvanian and was finally completed for 16½ million cubic feet of gas and 52 barrels of distillate per million cubic feet daily from 10,879-89 and at 10,891 feet, making it Oklahoma's deepest producer until Cities Service completed Lawson 1 in McClain County. Magnolia has two operations under way on its block.

The overall picture for development in Western Oklahoma is attractive, although it will be much slower than that which opened up the eastern part of the state. Lack of surface geology which entails the expenditure of substantial sums in geophysical exploration will restrict activities among the smaller independents. Seismic exploration also faces difficult problems which must be overcome before major companies commit themselves to the drilling of deep wells at costs of $250,000 and more. Indications are that independent operators are entering the sector with plans to assemble blocks on structures that have been tested in the upper beds but which have not been condemned insofar as deeper horizons are concerned. Support will have to be given the independents by the major companies but this may not come about until the larger firms are faced with the necessity of evaluating lease blocks but are not in a position to do so themselves. When this situation develops, activity in Western Oklahoma will gain momentum.


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# Fictitious Crude Demand Threatens Serious Excess of Gasoline Stocks

By WELDON B. HILL, Staff Writer

THE current strong demand for crude is fictitious, being created by large refinery runs to meet a shortage of fuel oils. This situation is causing gasoline stocks to pile up, and within the next two months inventories of motor fuel are likely to attain levels that may have serious repercussions on the industry's economic position.

The strong demand for crude exists in the face of reduced production and prospects of additional decrease in early 1946. Current crude output is almost 400,000 barrels per day below the peak of last July, in averaging about 4,600,000 barrels daily. It has been predicted that daily crude requirements will fall to an average of about 4,200,000 barrels during 1946, dropping to this level by late March or early April.

The situation is one for considerable alarm. Gasoline stocks may become so excess as to weaken the price structure. Unfortunately, current price ceilings do not encourage refiners to adjust plant yields that would increase fuel oil output and lower gasoline production, since there is more profit in a gallon of gasoline.

### Cause for Demand

The continued heavy demand for crude can be ascribed primarily to the enormous demand for fuel oil and heating oil brought about by higher consumption of the military than was first predicted, and the severe cold weather in the East, Midwest and South which has been a drain on heating oil.

At the same time, gasoline stocks have continued to rise and the picture at present points to a record stockpile of gasoline totaling between 115 million and 120 million barrels by the end of March, 1946. The all-time peak in gasoline stocks is 109,281,000 barrels, established March 14, 1942.

The end of the war brought an end to rationing of gasoline, fuel and heating oil as well as a sharp reduction in the forecast for future demand by the military. However, the program to return service men from foreign duty to discharge stations in the States was stepped up considerably during the latter part of 1945 and the use of all modes of transportation, including ships, and railroads, caused a sharp revision upward on the demand for heavy fuel oil.

Meantime, an early winter followed closely the lifting of fuel rations in the East and Midwest and the consumption of heating oil was sharply hiked.

The production of gasoil and distillate has increased steadily since the week ending November 24 but at the same time a continued decline has been noted in the stocks of these products. Production of residual fuel also has been increased but stocks are 5 million barrels below the figure of November 24, 1945. Reduction at this time of year is a normal seasonal situation, but stocks are below usual levels and becoming serious.

Even the lifting of gasoline rationing has failed to halt the climb of gasoline stocks.

This is because the sharp demand for fuel oil and heating oil has caused a fictitious demand for crude. Refineries, in an effort to meet an unexpectedly strong demand for fuel oil and heating oil, are keeping runs to stills above production and thereby drawing from oil stocks in storage.

The forecast for crude runs to stills for 1946 has been placed at about 4,200,000 barrels daily. At the present time, the runs are averaging 4,650,000 barrels daily and are likely to increase further before the normal seasonal decline in late March.

During the war period, refineries installed new catalytic processes that stepped up the amount of gasoline yield from a barrel of crude oil in order to meet both the military and essential civilian demands.

In the face of less profit, some refineries have reduced production of gasoline in an effort to meet the strong demand for fuel oil. The margin in profit between the price of a barrel of gasoline and a barrel of fuel oil has not been equalized by the OPA.

Therefore, it is natural that increased refinery runs to meet the fuel oil demand in the winter brings about an increase in gasoline stocks and at the same time a demand for crude oil which is only temporary.

Nominations for Texas crude have steadily increased during the past few months with nominations for February being 2,314,500 barrels, a boost of 19,538 barrels. At the same time, the Bureau of Mines' estimate for the demand of oil produced in Texas during February has been placed at 1,890,000 barrels, a drop of 70,000 barrels over final estimates for January.

The forecast for the production of crude oil in the United States has been placed at just above 4 million barrels daily, or about in line with crude oil runs to stills. The production now is averaging more than 4½ million barrels daily but a drop of approximately 300,000 barrels daily is expected when the industry passes through this abnormal period of strong oil demand.

### Another Factor

Also due to affect the situation is the continued rise in the output of natural gasoline. Natural gasoline production during 1945 averaged approximately 310,000 barrels daily as compared with about 117,000 barrels daily during 1936. New distillate discoveries on the Texas and Louisiana Gulf Coast sector and the already announced program for the construction of new gasoline plants probably will increase the production of this fuel to more than 350,000 barrels daily during 1946.

The boost in natural gasoline production will tend to lessen the demand for crude oil.

# Tracing Cement Travel With Carnotite

By JOHN L. P. CAMPBELL, Lane-Wells Company, Houston

WITH the admixture of a redioactive tracer, the vertical and mass distribution of cement behind the pipe can be determined through the application of a gamma ray curve.

Squeeze cementing is not an uncommon practice for obtaining productive efficiency of a well, but an ineffective squeeze job can raise many questions in an operator's mind. One natural thought is: "Where did the cement go?" A way of providing greater knowledge on cement is by use of radioactivity surveys following a squeeze job in which a radioactive tracer has been mixed in the cement. The survey determines the vertical and mass distribution of neat slurry and eliminates doubt before gun perforating for production.

Carnotite is the radioactive mineral mixed with the cement for such an investigation. The chemical formula of $K_20.2U_20_3.V_20_5.3H_20$ is called hydrous potassium uranyl vanadate. Because of its radioactive constituents, and with special emphasis on uranium, its utility is apparent as a desirable tracer in cement or plastic. Found in Western Colorado and Eastern Utah as an amorphous mineral occurring in earthy deposits, it is evidently a secondary mineral derived from some pre-existing mineral. It is canary yellow in color, rather soft, and has a specific gravity of 4.1. Mined as an ore and ground to a powder even to colloidal size if desired, it readily becomes an integral part of slurry without inhibiting any cementing qualities.

Carnotite is fairly low in cost and can be purchased in any amount. Storage does not affect or deteriorate the mineral in any way, so a supply can be on hand in anticipation of any survey or series of surveys. Carnotite is not consistent in quality and therefore is received as a processed product of quartering. The qualities are reasonable but not exact. To insure maximum efficiency it is highly desirable that the operator have a few ounces checked for gamma ray radiation as compared to a known sample. This test will determine the proper quantity to satisfy requirements. Because it is found as an earthy mass the concentration of radioactive mineral is not the same throughout the entire source of supply.

Field experience has shown that generally ¼-pound of carnotite per sack of cement is sufficient to satisfy requirements. If the carnotite is weak and has been judged thusly by test, comparable efficiency might require an increase to as high as a full pound per sack.

The primary step in tracing cement by a gamma ray survey is to presurvey the well if conditions permit. This becomes the base curve. A survey prior to carnotite is not always necessary if a reasonable increase in quantity is applied. It is merely suggested because it has proven advantageous. In many areas, however, shales vary considerably in radioactive intensity. Some shales are low, some high, some abnorally high. The very high radioactivity in the vicinity of the top of the cement would cause difficulty in interpretation of the log since a high radioactive shale might be mistaken for carnotite if the base curve was not available.

The first five or six sacks of cement are allowed to pass through the hopper without the addition of carnotite. This allows the water and cement to mix and prepare a slurry for the following. This is important since the carnotite is heavy and, having a specific gravity of 4.1, it could precipitate before reaching the well. Thereafter, quantities can be admixed without loss. When the slurry is placed, the carnotite-cement will have been deposited along the face of the wall in the bore hole.

Several variations in the proportions and methods of the carnotite have been tried but the above procedure appears to give the best results and a uniform quantity of carnotite mixed with every sack of the job provides most information with least doubt.

The field procedure is simple. While the sacks of cement are cut and dumped into the hopper, the required proportion of carnotite is manually added to each sack.

After the squeeze operation, when the cement has set and the plug drilled, a second survey, run on the same sensitivity as the first, can be superimposed on this base curve. Any accentuated anomalies or kicks not comparable to the former curve would be due to the carnotite in the cement. As well as showing the upper and lower extremities in travel, it indicates the concentration in relation to the strata. The top of the cement is noted by both curves becoming duplicates, and cement concentration by non similarity to the base curve. The curve cannot be used to determine channeling unless successive surveys are run, and even then the results are not definite. It portrays the height of travel and mass accumulation behind the pipe with reasonable success.

The results obtained to date have been most gratifying and show such a practice has a place in the oil industry's completion problems.

Because the conditions attendant to the cementing of an original oil string permit a fairly close estimate of the cement travel (which can be substantially aided by caliper surveys), the same is not true with a squeeze-cement job. Yet in many wells it is of consid-

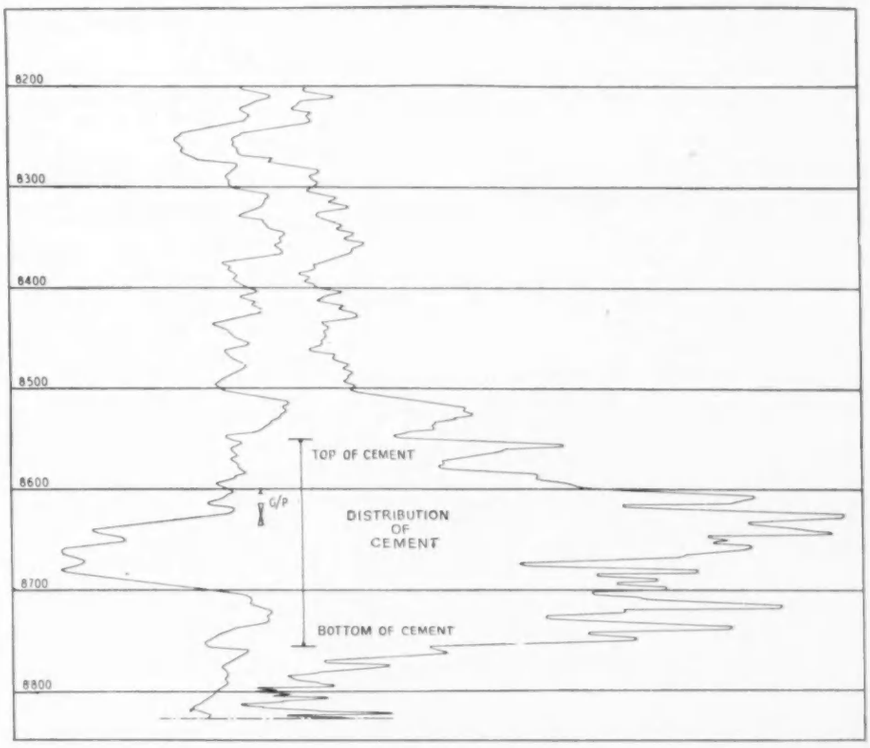


FIGURE 1

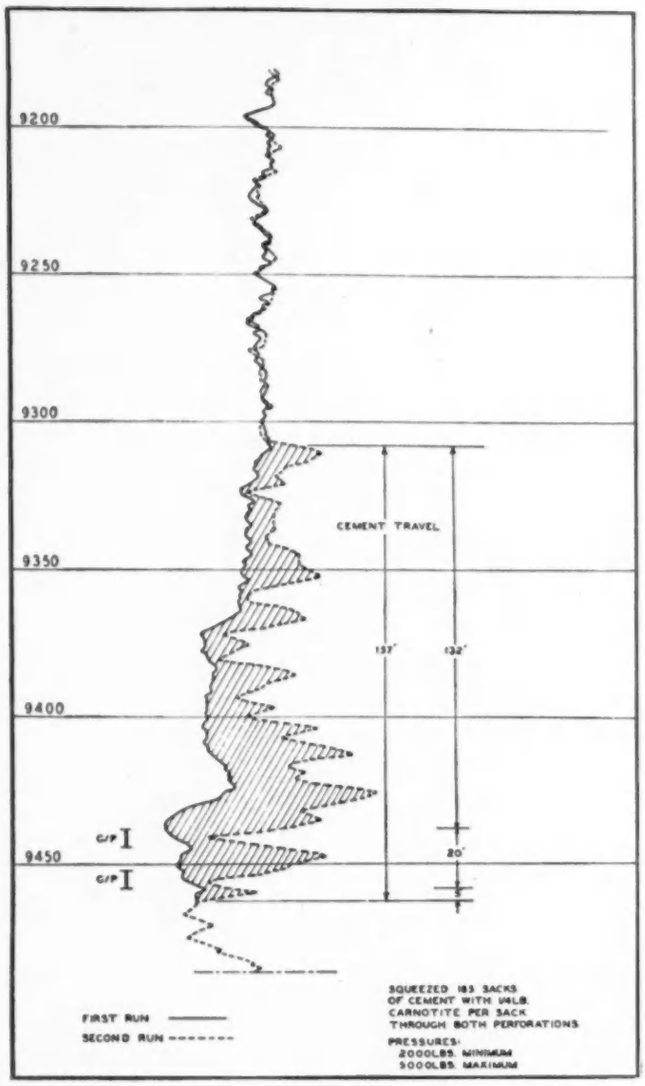


FIGURE 2

erable importance to have an accurate knowledge concerning the final location of cement behind the pipe after the original cement job. On account of the various constrictions and the pressures required, it is impossible to predict how much cement can be squeezed, whether the bulk of the cement will go up or down, or what effect the lateral distribution as a result of compaction and wedging will have on the vertical limits.

Figure 1 illustrates cement travel down the hole as well as up the hole from the zone of gun perforation. The two curves are not superimposed, but compared. The curve on the left is the original survey and shows the sand in relation to the shales above and below. After the log was run, the gun perforations from 8600 to 8606 feet and from 8614 to 8637 feet were squeezed cemented. At the time of the squeeze the mud was conditioned to 9.9 pounds per gallon (74 pounds per cubic foot) and a funnel viscosity of 40 seconds. The squeeze was performed through a cement retainer and 6½ barrels of water were pumped in ahead of the cement with a maximum pressure of 4700 pounds per square inch. The proportion of carnotite to cement was an average of one pound per sack of cement after the first five sacks had been by-passed. Seventy sacks were treated with carnotite. The maximum pressure required to perform the squeze was 5100 pounds per square inch.

After waiting 24 hours for the cement to set, the plug was drilled and the mud conditioned for the second Gamma Ray survey. This is the curve on the right in Figure 1. By direct comparison and correlation the discernible top of the cement was found to be at 8550 feet and the bottom at 8760 feet. The entire distribution was found to cover 210 feet and it is interesting to note that the cement extended 123 feet below the bottom perforation and 50 feet above the top perforation. The greatest concentration was at the perforated zone itself which was naturally expected.

The travel of cement below as well as above the gun perforated zone is of material importance because the same has occurred on every job to date. Validity, too, is exercised in the base curve log, for had there been none, the natural face value interpretation would assume the top of the cement at 8510 feet. Actually, a radioactive shale exists from 8510 to 8550 feet, and the cement rose no higher than its base. The small stringers of low intensity value from 8760 feet to bottom are fingers of cement which, due to the pressure of squeezing, were forced down into possible thin channels along the pipe or well bore. In the bulk displacement, the high radioactive intensity values indicate mass, and low values indicate lack of mass accumulation.

This application of radioactivity logging with carnotite cement has its value in any difficult squeeze job, particularly in a multiple sand field wherein widely separated productive zones show an extent of vertical distribution. Such a log will show whether the attempted squeeze covered all the sands to be tested or collected in a pocket or cavity.

Although the radioactive material and cement are pumped into the well at a constant rate, the mass distribution behind the pipe is not empirical—as proved by caliper surveys. Washed out sections will accumulate mass and the increased "anomalies" will show this mass and the vertical distribution.

### Another Squeeze Job

Figure 2 represents a squeeze job using a total of 165 sacks of treated cement. Unlike the former case where 70 sacks were treated with one pound of carnotite per sack of cement, a total of 165 sacks were used and treated with only ¼-pound per sack.

The well was prepared for the squeeze by setting a drillable bridging plug on a wire line at a length of 9462 feet and gun perforating from 9438-9444 feet and 9452-9458 feet with six holes in each zone. The solid line curve is the base curve and is a lithologic log of the strata. After squeezing through the two sets of perforations with 165 sacks of cement mixed with ¼-pound of carnotite per sack, at pressures ranging from 2000-5000 pounds per square inch, the cement set for 48 hours. The remaining cement and the drillable plug was drilled out and circulation was begun to free the inside of the casing of any remaining treated cement.

The second survey was run from a point 26 feet below the depth of the first and is indicated by the dashed line. Continuance of the dashed line, and the cross-hatched differential of the superimposed logs which indicates the presence of the radioactive cement, emphasize the mass of cement and its vertical distribution. In this instance the cement section extends over 157 feet with the top 132 feet above the upper perforation, the 20 feet between, and five feet below the lower perforation. Although only ¼-pound of carnotite per sack of cement was used, its travel is clearly indicated. This would have been difficult to determine, however, without the base curve.

### Multiple Squeeze

Figure 3 represents a multiple squeeze to determine the effective displacement when more than one job is performed in the same section. This well, drilled and completed in 1943 through gun perforations from 6060-75 feet, produced 152 barrels of oil per day through a ⅛-inch choke. Production declined in the early part of 1944 and died a few months later. The workover program included a gamma ray survey which is the solid-line curve, which likewise provided a source of information in procedure.

After a squeeze job using 25 sacks of cement with ¼-pound of carnotite per sack, the plug was drilled and a second gamma ray survey was run. The dotted line shows that little cement accumulated opposite the zone but was thinly distributed overall. The zone from 6060-6070 feet was gun-perforated with 30 holes and a drill-stem test revealed 50 percent water. The well was squeezed

again, this time with 45 sacks of cement and an increase of carnotite to ½-pound per sack. The third survey indicated by the dashed line, still shows a lack of cement accumulation on bottom, and practically no increase over run No. 2. To test, it was gun-perforated from 6056-6066 feet with 30 holes, and a drill-stem test indicated 80 percent water and 120 barrels of oil per day. Realizing that water would increase, it was decided to squeeze off the perforations and test higher. If favorable, this zone would be produced until it made water. Then both this and the lower zone could be produced for final drainage. The last perforations were squeezed with 50 sacks, getting out only 27, and the well gun-perforated from 6021-6041 feet with 60 holes. The well was then put on production after a drill-stem test of 146 barrels of oil per day through a ⅛-inch choke.

The area between the solid line (run No. 1) and the dotted line (run No. 2) is the distribution of cement on the first job. The area between run No. 2 and Run No. 3 is the cement placed by the second squeeze job. It indicates the ineffectiveness of the former squeeze because the cement probably would not have risen to its indicated height had the annulus been filled with cement.

### No Vertical Travel

Figure 4 is another "twist" in the application of gamma ray logging. Unlike any of the other examples this survey shows no appreciable vertical travel but indicates greatly increased mass. This is not cement, however. It is plastic.

The properties of commercially available plastics, particularly those that penetrate interstitial spaces, are such that they can be, and have been, used to good advantage in replacing cement under certain conditions. Various applications of plastics are widely understood but it is not so generally known that carnotite can be retained in suspension by plastics while in the fluid state, thus making it possible to conduct investigations similar to those described for carnotite mixed with cement.

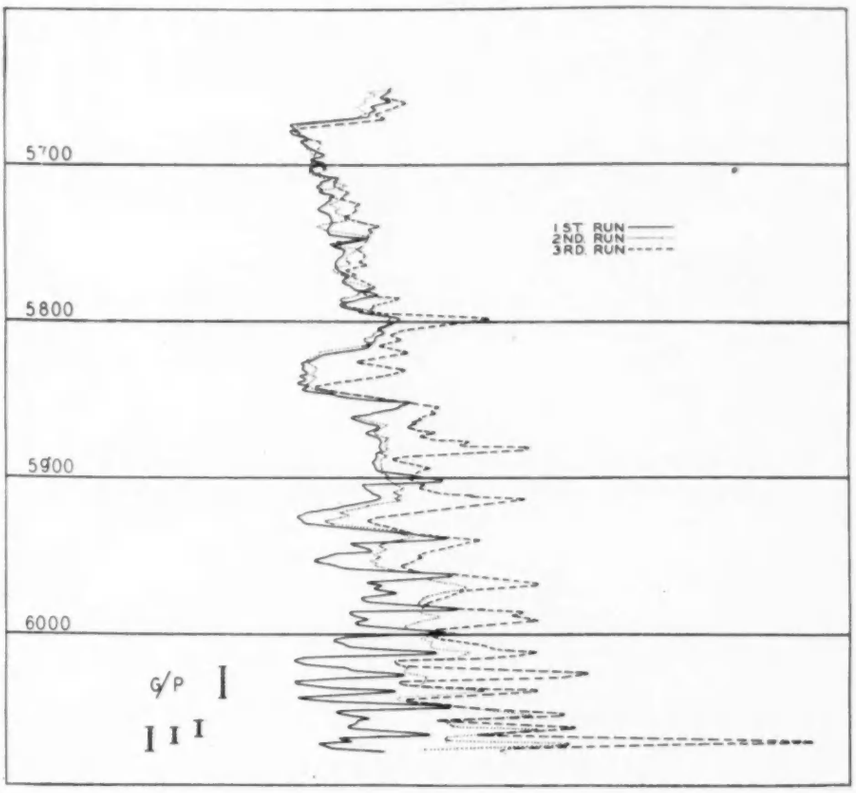


FIGURE 3

In an effort to correct an unsatisfactory gas-oil ratio this experimental test using carnotite in a plastic squeeze was performed. Following the standard procedure the solid line establishes the normal curve and denotes the sand of interest from 4495-4525 feet. A wire line drillable bridging plug was set at 4518 feet and the well was squeezed with 100 gallons of plastic mixed with finely ground carnotite. The squeeze was done through old perforations at 4514 to 4516 feet with a pressure of 1300 pounds per square inch that built up to a maximum of 1700 pounds per square inch. After a sufficient lapse of time to permit the plastic to harden, the plug was drilled, hole reconditioned, and the second survey run to determine the distribution. This curve, when superimposed upon the original curve, shows by the cross-hatched area that plastic has very little vertical travel; but with plastic following paths of least resistance into permeable zones, it has relatively large mass accumulation.

This mass, however, is exaggerated on the log and it not representative of the extreme penetration indicated. A high concentration of carnotite was employed. When compared with carnotite cement where ¼-pound per sack of cement was used, the amount of carnotite was approximately six times as much per unit.

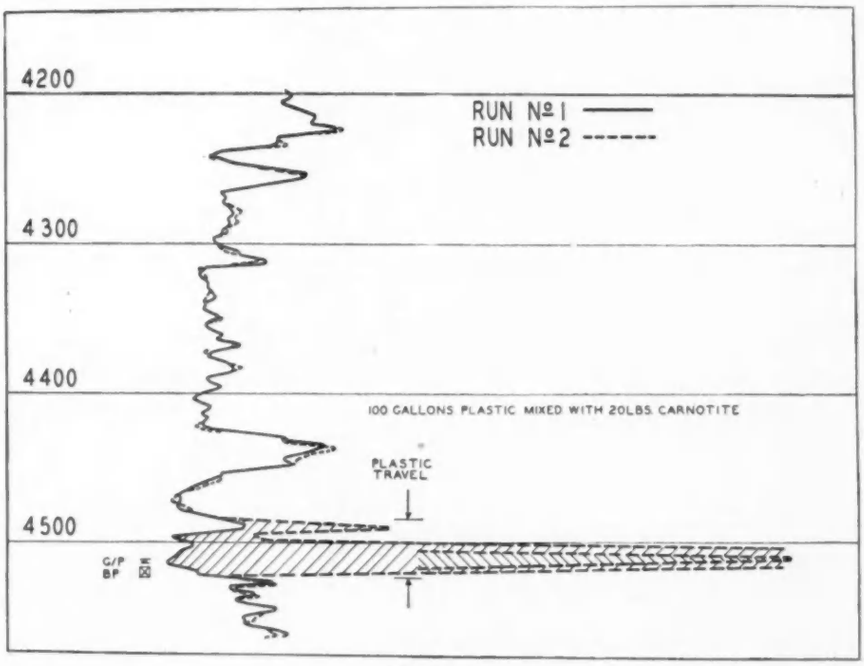


FIGURE 4

### Conclusion

As indicated by the above logs, the use of carnotite is particularly adaptable to salt dome structures of multiple sand fields, lenticular sands with separate regulatory productive horizons, correction of gas-oil ratios, and difficult squeeze jobs where improper shut off can be diagnosed from the information shown on the logs. It provides production and reservoir engineers, geologists and others with a means of acquiring more complete knowledge; and with known data at hand, a better job is accomplished.

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[1] Rogers "Rocks and Minerals".

[2] A source of supply of carnotite is: Hammer Laboratories, Incorporated, Central Savings Bank Buildings, Denver Colorado.

[3] "Checking Your Cement Jobs With Radioactivity Logging," by John L. P. Campbell, Tomorrow's Tools—Today, First Quarter, 1944, Vol. X, No. 1.

[4] "Radioactivity Logging Provides Valuable Data for Gulf Coast Operations" by James D. Hughes, Tomorrow's Tools—Today, Fourth Quarter, 1943, Vol. IX, No. 4.

# Nation's 25,840 Completions Fall Short of 1945 PAW Goal

EFFORTS of a labor-short petroleum industry undershot the goal of 27,000 new wells completed in the U. S. during 1945 as set by PAW.

Yearly totals missed the target figure by 1160 as new well completions reached 25,840 for this nation last year. This figure includes oil producers, dry holes, distillates and old wells deepened. With aid furnished the industry in 1944 by the government in securing materials and equipment, only 24,455 new wells were completed. The 27,000 figure set for 1945 by PAW seemed top-heavy to men in the industry whose drilling and production departments have been crippled by a drastic shortage of experienced drilling crews for the past three years.

However, the accumulative picture for new completions during 1945 in the U. S. is a definite improvement over that of 1942, 1943 and 1944. The average weekly rate of new completions based on yearly totals has increased since 1943, when the rate dropped to 370 wells per week. During four years of war the rate has steadily risen from the 1943 figure to the average weekly rate of 498 wells for 1945 based on yearly totals. On a similar basis, the number of new wells completed for an average week in 1941, the last prewar year, was 620. During the first half of last year drilling activity climbed from 418 new wells per week in January to 558 new wells per week in July, the highest for any month of the year. From that point through the end of the year, the rate declined slightly to 521 new wells per week in December. The average weekly rate of completions during 1945 compare somewhat favorably with that of 1941, and with the return of more experienced men to the drilling field, combined with the improving materials situation, the rate of new wells should show an upward surge.

The highest drilling activity over the nation during 1945 for any one state was in Texas where 7410 new completions were filed. This figure represents an increase of 18.8 percent over new wells completed during the previous year. Pennsylvania's 2929 new wells drilled and completed last year put the Quaker State in second place, but even this figure is a marked decrease compared with 1944 totals, and includes more than 1000 wells drilled for secondary recovery purposes. Oklahoma's completions increased 24.3 percent last year, with 2351 new wells for third place in the nation. California's drilling activity remained almost constant with 2090 new wells completed last year, and practically the same number of completions for 1944.

## Well Completions in the United States During December, 1945, and Cumulative for Year

(Figures compiled from weekly reports of editorial men, with following exceptions: Illinois from Illinois Geological Survey; Indiana from Indiana division of Geology; Missouri from Missouri Geological Survey; Allegany, New York, Bradford and Kane-Clarendon, Pennsylvania, from the Producer's Monthly: Tennessee from Tennessee Division of Geology.)

| State or District | MONTHLY COMPLETIONS: December, 1945 | | | | | | | | | CUMULATIVE COMPLETIONS: Year 1945 | | | | | | | | | RIGS IN OPERATION | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Details for Dec., 1945 | | | | | Total Completions | | | | Details for Year 1945 | | | | | Total Completions | | | | Details for Dec. 31, 1945 | | | Total Drilling and Rigs Up | | |
| | New Wells | | | | Old Wells Deepened | | | | | New Wells | | | | Old Wells Deepened | | | | | | | | | | |
| | *Oil | Gas | Dry | Others[6] | | Dec. 1945[1] | Nov. 1945[3] | Dec. 1944[2] | Total Footage Dec. 1945 | *Oil | Gas | Dry | Others[6] | | Year 1945[4] | Year 1944[5] | Percent Change Weekly Average | Total Footage 1945 | Drilling | Rigs Up | Shut Down | Dec. 31, 1945 | Nov. 30, 1945 | Dec. 31, 1944 |
| Alabama | 1 | | 1 | | | 2 | 5 | 3 | 8,975 | 14 | 1 | 23 | | | 38 | 38 | + 1.9 | 151,088 | 3 | 1 | 1 | 4 | 6 | 4 |
| Arizona | | | | | | | | | | | | | | | 6 | | | | | | | | | |
| Arkansas | 12 | 2 | 11 | | | 25 | 14 | 23 | 102,651 | 118 | 5 | 73 | | 2 | 198 | 233 | — 13.4 | 864,831 | 25 | 5 | 9 | 30 | 40 | 26 |
| California | 94 | 2 | 27 | | 2 | 125 | 133 | 154 | 535,640 | 1,699 | 45 | 332 | 2 | 12 | 2,090 | 2,043 | + 4.3 | 8,599,049 | 239 | 53 | 41 | 292 | 272 | 357 |
| Colorado | 6 | | 3 | | | 9 | 3 | 5 | 57,581 | 39 | 3 | 11 | | | 53 | 30 | + 78.9 | 323,492 | 59 | 5 | 12 | 64 | 68 | 16 |
| Florida | | | 1 | | | 1 | 1 | 4 | 3,040 | 1 | | 14 | | | 15 | 7 | +118.3 | 98,395 | 8 | | | 8 | 7 | 3 |
| Georgia | | | | | | | | | | | | 6 | | | 6 | 8 | — 23.5 | 19,502 | 1 | 1 | | 2 | | 1 |
| Illinois | 105 | | 54 | 1 | 2 | 162 | 170 | 202 | 401,695 | 1,073 | | 688 | 14 | 130 | 1,905 | 2,066 | — 6.0 | 4,617,600 | 206 | 65 | 21 | 271 | 236 | 217 |
| Indiana | 11 | | 11 | | | 22 | 22 | 24 | 33,692 | 118 | 28 | 176 | | 10 | 332 | 335 | + 0.9 | 515,551 | 44 | 11 | 7 | 55 | 58 | 36 |
| Iowa | | | 1 | | | | | | | | | 1 | | | 1 | 2 | — 50.0 | 1,250 | | | | | | 1 |
| Kansas | 90 | 29 | 48 | 3 | 4 | 174 | 153 | 124 | 560,034 | 811 | 181 | 678 | 13 | 74 | 1,757 | 1,725 | + 4.4 | 5,533,962 | 289 | 18 | 16 | 307 | 293 | 278 |
| Kentucky | 35 | 3 | 12 | | 1 | 51 | 70 | 71 | 105,215 | 331 | 77 | 242 | 1 | 7 | 658 | 826 | — 18.8 | 1,158,935 | 52 | 12 | 3 | 64 | 72 | 91 |
| Louisiana | 54 | 13 | 26 | 9 | 1 | 103 | 103 | 55 | 609,139 | 599 | 182 | 252 | 48 | 6 | 1,087 | 778 | + 42.4 | 7,798,605 | 191 | 4 | 11 | 195 | 204 | 190 |
| North | 26 | 10 | 17 | | 1 | 54 | 56 | 19 | 198,034 | 213 | 170 | 60 | 14 | 2 | 459 | 286 | + 63.3 | 2,097,495 | 89 | | 8 | 89 | 93 | 64 |
| South | 28 | 3 | 9 | 9 | | 49 | 47 | 36 | 411,105 | 386 | 12 | 192 | 34 | 4 | 628 | 492 | + 30.2 | 5,701,110 | 102 | 4 | 3 | 106 | 111 | 126 |
| Michigan | 17 | 8 | 24 | | | 49 | 68 | 53 | 131,629 | 291 | 49 | 419 | 2 | 2 | 763 | 688 | + 13.0 | 1,970,173 | 103 | 16 | 20 | 119 | 114 | 116 |
| Mississippi | 10 | 1 | 6 | | 1 | 18 | 29 | 18 | 105,149 | 191 | 6 | 166 | 5 | 1 | 369 | 213 | + 76.6 | 2,440,887 | 41 | 3 | 3 | 44 | 46 | 55 |
| Missouri | | | | | | | 3 | 21 | | 3 | 10 | 31 | | 4 | 48 | 61 | — 20.0 | 50,064 | 4 | | 4 | 4 | 4 | 6 |
| Montana | 8 | 1 | 1 | 2 | 1 | 11 | 23 | 21 | 21,083 | 173 | 17 | 45 | 2 | 1 | 238 | 335 | — 27.5 | 589,175 | 53 | 6 | 13 | 59 | 63 | 48 |
| Nebraska | | | 1 | | | 4 | 4 | 3 | 2,750 | | | 5 | | | 5 | 18 | — 70.1 | 16,800 | 5 | | | 5 | 1 | 2 |
| New Mexico | 21 | | 9 | | | 30 | 28 | 37 | 121,339 | 277 | 15 | 131 | | 2 | 425 | 422 | + 2.6 | 1,546,558 | 92 | 7 | 4 | 99 | 96 | 113 |
| New York | 54 | | | 30 | | 84 | 100 | 86 | 112,896 | 723 | 3 | 4 | 408 | | 1,138 | 1,249 | — 7.2 | 1,590,168 | 53 | 11 | 29 | 64 | 106 | 101 |
| Ohio | 18 | 26 | 28 | 1 | | 73 | 102 | 89 | 185,386 | 248 | 352 | 415 | 6 | 2 | 1,023 | 1,024 | + 1.8 | 2,581,679 | 202 | 69 | 41 | 271 | 195 | 190 |
| Oklahoma | 105 | 22 | 60 | | 5 | 192 | 204 | 175 | 665,175 | 1,370 | 125 | 763 | 38 | 55 | 2,351 | 1,891 | + 26.7 | 9,291,820 | 469 | 38 | 22 | 507 | 513 | 559 |
| Pennsylvania | 102 | 15 | 1 | 96 | 1 | 215 | 223 | 213 | 366,293 | 1,400 | 232 | 52 | 1,227 | 18 | 2,929 | 3,060 | — 2.4 | 5,043,656 | 175 | 25 | 100 | 200 | 267 | 267 |
| South Dakota | | | | | | | | | | | | 1 | | | 1 | | | 4,950 | | | | | | 3 |
| Tennessee | | | | | | | 1 | | | | | 4 | | | 4 | 9 | — 52.9 | 8,630 | 3 | 1 | | 4 | 1 | 2 |
| Texas | 378 | 48 | 205 | 8 | 13 | 652 | 597 | 517 | 2,793,774 | 4,025 | 699 | 2,427 | 128 | 131 | 7,410 | 6,235 | + 21.1 | 32,693,651 | 1,056 | 47 | 99 | 1,103 | 1,116 | 1,351 |
| E. Tex. Border | | 14 | 1 | | | 15 | 19 | 4 | 99,048 | 2 | 92 | 27 | 7 | | 128 | 35 | +272.7 | 827,434 | 38 | | | 38 | 50 | 20 |
| E. Tex. Field | | | | | | | | | | | | | | | | 4 | | | | | | | | |
| Rest of E. Tex. | 29 | 1 | 9 | | | 39 | 28 | 22 | 194,760 | 145 | 13 | 102 | 3 | 5 | 268 | 280 | — 2.5 | 1,595,817 | 67 | 4 | 9 | 71 | 63 | 55 |
| North | 112 | 2 | 90 | 1 | 1 | 206 | 147 | 118 | 540,398 | 967 | 15 | 814 | 34 | 20 | 1,850 | 1,415 | + 33.3 | 4,562,272 | 192 | 11 | 22 | 203 | 174 | 176 |
| West Central | 19 | 4 | 17 | | 3 | 43 | 42 | 24 | 110,376 | 199 | 48 | 224 | | 11 | 482 | 419 | + 17.2 | 1,305,343 | 95 | 6 | 22 | 101 | 73 | 88 |
| West | 102 | 2 | 21 | | 6 | 131 | 125 | 144 | 652,960 | 1,289 | 24 | 367 | | 52 | 1,732 | 1,648 | + 7.1 | 8,306,354 | 352 | 8 | 29 | 360 | 404 | 485 |
| Panhandle | 13 | 14 | 2 | | 1 | 30 | 42 | 33 | 95,884 | 179 | 341 | 41 | | 27 | 588 | 332 | + 80.2 | 1,776,791 | 66 | 5 | 8 | 71 | 81 | 196 |
| Upper Coast | 37 | 5 | 21 | 2 | | 65 | 50 | 52 | 444,538 | 353 | 43 | 268 | 42 | 7 | 713 | 612 | + 18.7 | 5,176,679 | 91 | | 3 | 91 | 91 | 118 |
| Lower Coast | 53 | 5 | 23 | 5 | 2 | 88 | 104 | 77 | 510,938 | 645 | 88 | 299 | 39 | 7 | 1,078 | 927 | + 18.5 | 6,821,771 | 110 | 8 | 3 | 118 | 131 | 146 |
| Southwest | 10 | 1 | 17 | | | 28 | 33 | 35 | 112,314 | 220 | 32 | 220 | 2 | 2 | 476 | 458 | + 5.9 | 1,878,924 | 25 | 2 | 2 | 27 | 32 | 47 |
| S. Central | 3 | | 4 | | | 7 | 7 | 8 | 32,558 | 26 | 3 | 65 | 1 | | 95 | 105 | — 7.6 | 442,266 | 20 | 3 | 1 | 23 | 17 | 20 |
| Utah | | | | | | | | | | | | | | | | 1 | | | 3 | 2 | 2 | 5 | 7 | |
| W. Virginia | 5 | 51 | 11 | 1 | | 68 | 60 | 78 | 184,612 | 86 | 552 | 129 | 1 | 35 | 803 | 975 | — 16.1 | 2,091,114 | 218 | 48 | 128 | 266 | 90 | 109 |
| Wyoming | 14 | | | | | 14 | 24 | 19 | 59,825 | 147 | 5 | 41 | | | 193 | 177 | + 11.1 | 875,286 | 79 | 10 | 16 | 89 | 94 | 76 |
| Total U.S. | 1,140 | 221 | 541 | 151 | 31 | 2,084 | 2,140 | 1,995 | 7,167,573 | 13,737 | 2,587 | 7,129 | 1,895 | 492 | 25,840 | 24,455 | + 7.7 | 90,476,871 | 3,673 | 458 | 602 | 4,131 | 3,968 | 4,218 |

* Includes distillate wells. [1] Wells completed in 4 weeks, or 28 days, ended Dec. 29, 1945. [2] Wells completed in 4 weeks, or 28 days, ended Dec. 30, 1944. [3] Wells completed in 4 weeks, or 28 days, ended Dec. 1, 1945. [4] Wells completed in 52 weeks, or 364 days, ended Dec. 29, 1945. [5] Wells completed in 53 weeks, or 371 days, ended Dec. 30, 1944. [6] Water input, gas injection, and salt water disposal wells.

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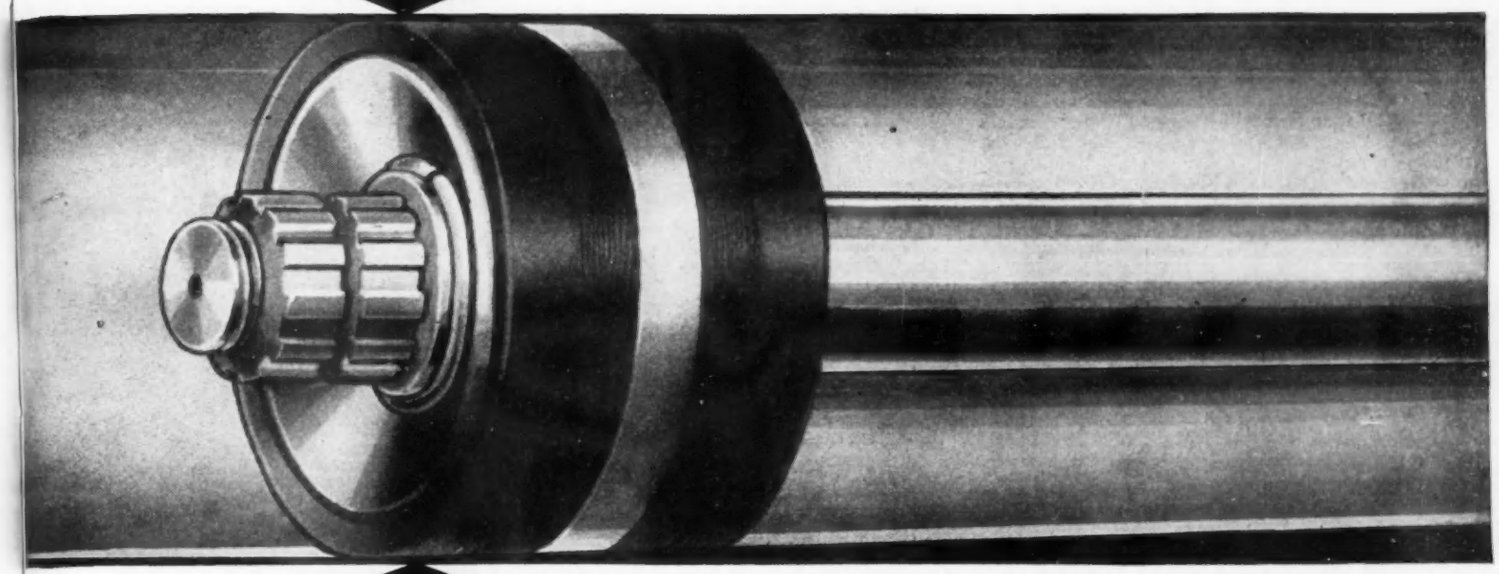

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## Truck-Mounted Engine Provides Emergency Drive for Central Power Units

In the stripper oil fields of Eastern Kansas and Oklahoma, it is common practice to pump one or more wells with shackle rods radiating from a centrally located power unit. Many such units are of the belt-driven type powered either by an internal combustion engine or an electric motor.

**PORTABLE POWER**

In the event of breakdown or failure of the prime mover, (engine or motor), pumping operations must be discontinued until repairs or replacements have been made.

In order to provide for such emergencies and reduce lengthy interruptions to a mniimum, one lease operator uses a portable prime mover, consisting of an old style, 40 horsepower, horizontal two-cylinder tractor motor mounted on the rear end of a stripped down chassis.

With such a portable prime mover, ample horsepower can be provided on very few minutes notice merely by using a longer belt than was used with the stationary engine or motor.

Such an arrangement makes it comparatively easy to maneuver the portable prime mover, around so that the belt pulley is properly aligned with the belt wheel of the shackle rod power unit.

Such a device has more than once proved its worth by substituting power while engine or motor repairs were being made, thus preventing lengthy shutdowns.

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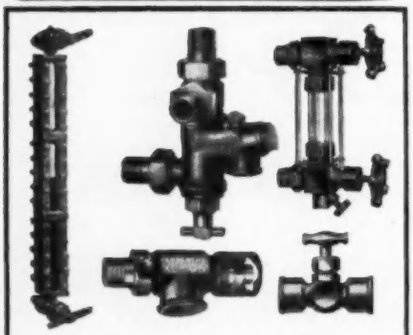
**QUALITY PRODUCTS**



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## Pivoted Board Provides Safe Sandline Stripper

The conventional method of stripping the sand line often becomes a dangerous operation in that a man must stand fairly close to the well head and hold the rope or stripping line which is wrapped several times around the line. Should the stripper suddenly catch on wickers on the line or become entangled in the bailer, the operator might be drawn into the line, with possible serious injuries resulting. In addition, oil stripped from the line usually rolls off several feet above the open casing, causing the oil to be blown about the rig floor. One company overcomes both hazards and unnecessary oil spray by using a stripping device secured to the end of a 6-foot board which is held at floor level or at least at casing head level. A pack of several layers of belting or rubberized material is fastened to the well end, the material having a stripping slot cut through it. The other end of the board has a short line attached to it, this in turn being nailed to the floor.

**WIRE LINE CLEANING**

Stripping the sand line is made a simple and safe operation. The man attending it stands on the board some five or six feet from the well, his weight holding the unit close over the open casing. When the bailer nears the surface, he stands to one side and lets the stripper ride up with it until it is "pulled" off the line due to the board being secured to the floor. The work proceeds not only more safely, but also faster, since it is unnecessary to wrap or unwrap a stripping line each time the bailer is run in or pulled out.

## PRODUCTION HINTS

### Telescoping Pipe Provides Effective Lease Closure

On leases near main traveled highways means must be provided to prevent trespassing of unauthorized vehicles, without interfering with the free passage of company personnel. One company superintendent constructed a guard rail which appears to be a permanent barrier to the passerby, but which is easily opened by those familiar with its construction. It is made from 3-inch pipe risers placed in concrete, surmounted by a railing which is welded to a saddle in the top of the risers. A 20-foot piece of 2½-inch pipe is used for the bar, inserted in the 3-inch railing.

**LEASE PROTECTION**

The 2½-inch piece is fitted before welding of the horizontal 3-inch pieces so that no strain is set up in the railing. A hole was burned through both pipes at one end of the inserted piece and a pin inserted to which a lock can be attached. However, the pin is inconspicuous and even is not inserted on some of the railings, so that frequently it is not necessary to install a lock.

### Extended Skimming Pan Betters Separation

Using salvaged piping materials, an unusually efficient intake system may be built for skimming and recovering oil from the waste sump. Commonly consisting of only an upturned 3- or 4-inch elbow lowered below the surface of the pond, the skimming fitting used in this installation has many times the normal capacity, resulting in faster, more efficient recovery and necessitating much less running time for the pump transferring oil to the tank battery. The oversize skimming pan, mounted at the end of a 4-inch line broken in the center with a swing fitting, is made from a 2-foot half-section of 8-inch pipe, the top of which is left open as shown. To a 4-inch opening in the bottom center of this pan is welded a 4-inch nipple which is then screwed into the intake line fitting. The much greater periphery of this skimming pan facilitates considerably the positioning of the unit at the oil-water contact.

**WASTE RECOVERY**

The chain hoist is unusually simple yet stronger than many types. The six-spoked, hexagonal hand wheel is mounted on an arm welded to a length of 2-inch pipe set in the ground below the sump platform. Mounted independently, it places no strain on the wooden platform. Breaking the heavy intake line in the center with a swing permits much lighter hoisting equipment and consequent easier operation by one man.


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## PIPE LINE HINTS

### Adjustable Thread Protectors on Welded Rack Improve Alignment Jig for Make-Up

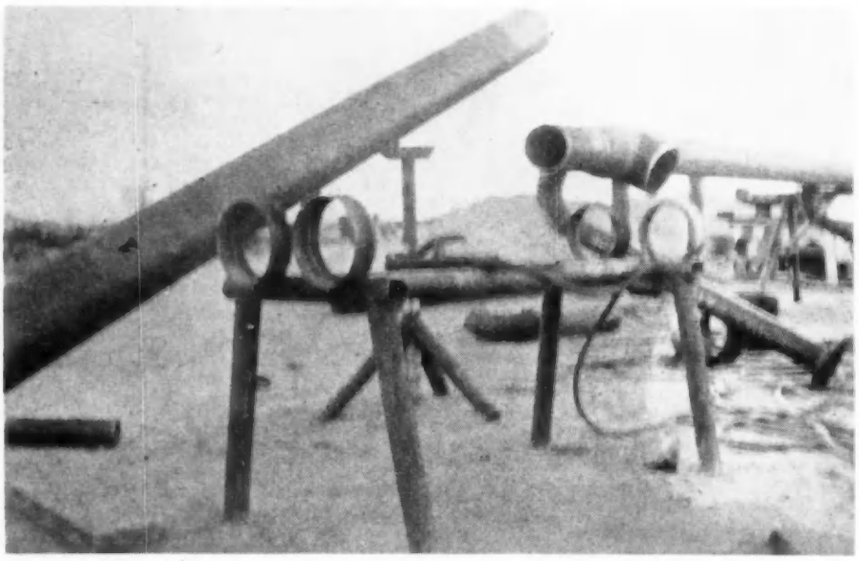
**HEADER FABRICATION**

For making up 12-inch welded headers in complete units prior to installation, one contractor uses a supporting rack which gives easy accessibility to any particular point on the circumference of the pipe while making a butt-end weld, thereby eliminating the necessity of turning the pipe during the welding process.

The frame and legs of the rack are constructed of 2-inch pipe. The longitudinal members are two pieces of 2-inch pipe about 5 feet long. To the ends of these members, the end pieces are welded with 4-inch projections extending from the 4 corners of the rectangular frame thus formed. Legs of 2-inch pipe about 30 inches long are welded to the 4 projections of the rectangular frame.

Four heavy thread protector rings for 8-inch pipe are securely welded to the end members of the rack. Each pair of thread protectors is located on the end pieces of the rack with reference to the longitudinal center line, but spaced so that the distance between rings at their closest points is approximately 2 inches.

For butt-welding of two pieces of pipe, the pipes to be welded are placed on the rack with the thread protectors acting as contact supports. The ends of the pipes being welded, which extend beyond the rack on either end, are supported on cribbing or other adjustable supports. After properly lining the ends of the pipes together, the welder has plenty of space to tack weld a butt joint in several places around the circumference. Later he follows up by welding a bead around the pipe, without the necessity of rotating the heavy pieces of pipe.

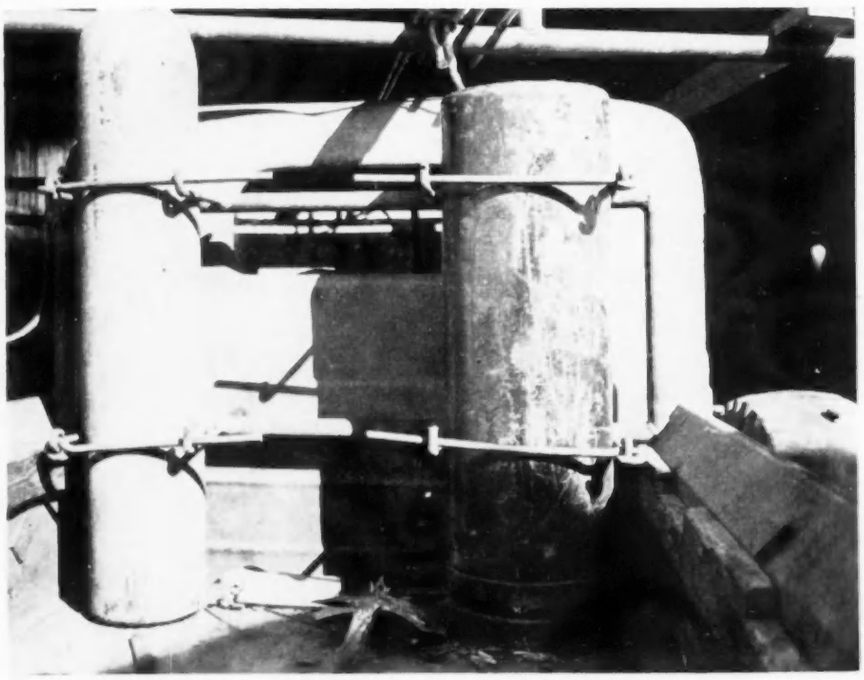


### Removable Racks and Retainer Bars Provide Quickly Actuated Bottle Stand

**WELDING EQUIPMENT**

One contractor constructed a frame to hold the welding bottles in transit so that they can be easily taken from the rack or the entire rack removed when the welder does not require the transportation. Made from scrap 1-inch pipe and ⅝ sucker rod material, the frame is simple in design and efficient in operation. The pipe was cut and welded into a rectangular shape with legs also of 1-inch pipe which fit into the wells at the front end of the bed of the light truck. Sucker rods were welded at right angles to the pipe with sufficient space between to allow a tight fit of the acetylene and oxygen bottles. On one end of the rod material was welded an eye and a hook was welded to the other, the rods with the eyes being on the outside of the rack. Another set of four rods was cut and welded with an eye on one end to fit into the eye of the stationary pieces and long enough to reach past the hook far enough to provide a handle.

When the welder is to go to the field, the frame is inserted in the stake wells of the first light truck available, the bottles placed in their proper positions, the hose, tool box and other equipment placed on the rear of the truck and the unit is ready for use.



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## Can YOU short-cut

# CORROSION PROBLEMS?

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In its Corrosion Data File, INCO Technical Service has accumulated thousands of reports dealing with the behavior of metals and other materials under corrosive conditions.

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The "Corrosion Data Work Sheet" has been prepared for that purpose. Use the handy request form below and we'll get your copies in the mail right away.

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**"IS THERE A WAY TO AVOID STRESS CORROSION CRACKING OF HEAT EXCHANGER TUBES?"**

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After reviewing all factors involved, INCO Technical Service reported that stress corrosion cracking in this instance was probably induced by corrosion pitting in the crevices between the tube sheet and the unrolled portion of the tube ends.

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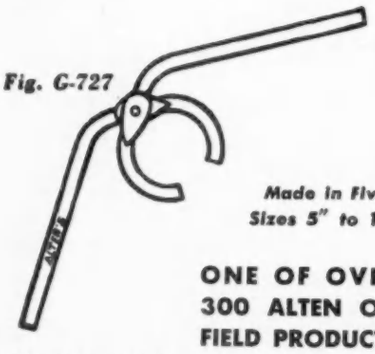
Fig. C-727

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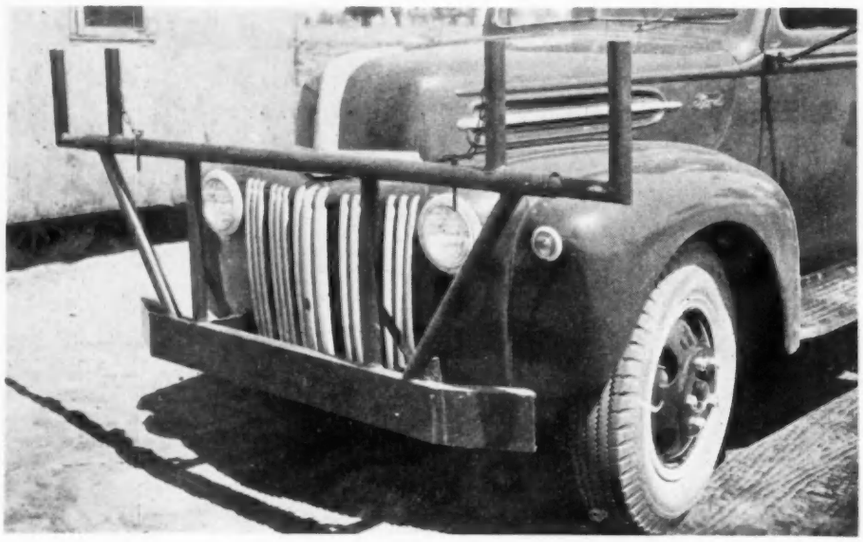
## Extensible Arms Accommodate Pipe or Timber Loads



**MATERIAL HANDLING**

For simplicity of construction, strength and adjustability to the load being carried, the well-braced, large capacity rack devised by one company is difficult to surpass. Used for general work, the rack consists of a 6-foot length of 2½-inch tubing laid horizontally across the front of the truck and welded to the tops of two 2-foot uprights and two angular braces, all of 2-inch pipe, which are welded to the heavy-duty shop-made steel bumper. An upright 1-foot section of 2-inch pipe is welded to each end of the horizontal member. Telescoping inside the 2½-inch piece are two independently-acting arms of 2-inch pipe which may be adjusted to suit the particular load. These sliding arms may be pulled out in increments of six inches and at each stop may be pinned in place with a small bolt chained to the assembly. The bolt also prevents the inner pipe from rotating.

An especially desirable feature of this rack is the ease with which either side may be independently adjusted. For carrying bulky materials such as light pipe or lumber, the large capacity of the rack eliminates many trips.

## Plunger Cover Safeguards Reciprocating Pump Rod

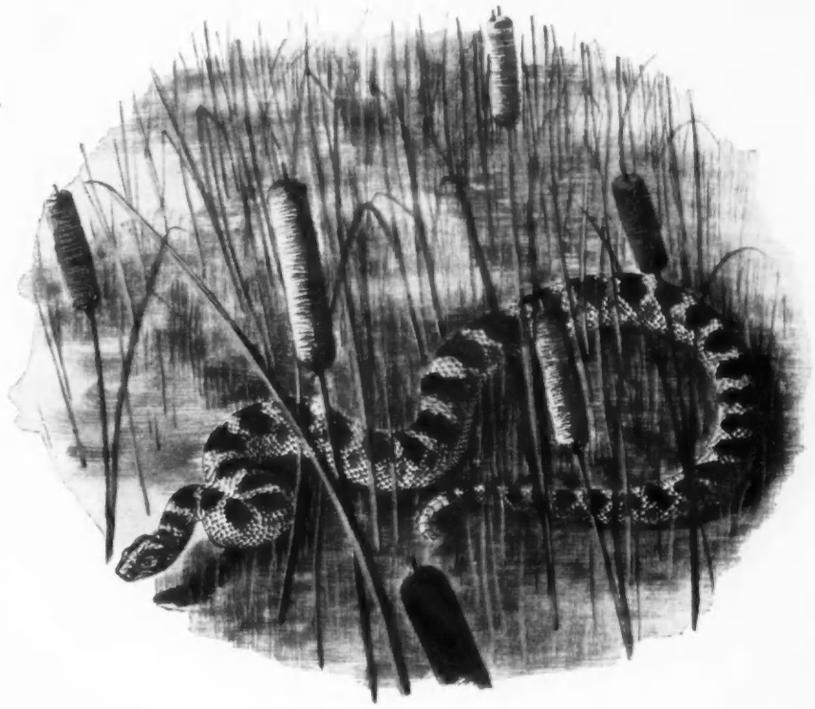
**STATION SAFETY**

Protecting oilers and other station operating personnel from injury from the reciprocating movement of rods which extend through the end of the pump and across otherwise unused floor space, one superintendent extends the outboard packing gland so as to provide a stationary obstacle which, if contacted, serves as warning and does not carry the potential injury hazard which the reciprocating rod contains.

On the end of the gland bolts is carried a pipe collar of a size which will take a short pipe nipple of diameter sufficient to enclose the pump rod without contacting it.

The nipple is made long enough to take in the entire stroke of the outside or exposed end of the pump rod, the end being left open to allow any leakage to work its way into the clear, as well as eliminating any pumping or air-compressor effect which would be present were the shielding pipe closed at the end.

The supporting pipe collar may be brazed to the gland, if desired, or may be fitted with an oval end through which are drilled holes to match the gland bolts. In either case, the gland nuts serve to support the shield; with or without the interposition of a supplementary nut, as the operator may require.



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# Refinery Runs Reduced; Withdrawals Of Fuel Oils From Storage Increase

Crude runs to stills at U. S. refineries decreased considerably in the week ended January 12, although crude production showed an increase, and output of gasoline and residual fuel oil declined. The production of seasonally needed distillate fuel oil, however, was increased a little over the previous week. These trends were revealed in the latest weekly report of the American Petroleum Institute.

The net result of these trends in operations involved a slowing up of the accumulation of gasoline in storage and increases in withdrawals of distillate and residual fuel oils from storage.

U. S. crude runs to stills averaged 4,498,000 barrels daily during the week, a decrease of 153,000 barrels from the rate in the previous week, and 82,000 a day of 1.8 percent less than runs in the corresponding week a year ago. Crude production in the U. S. averaged 4,578,000 barrels daily in the January 12 week, up 30,000 from the week before but 145,000 a day or 3.1 percent less than output in the like week a year ago. Crude oil stocks totaled 218,193,000 barrels on January 5 this year, the Bureau of Mines reported. They were then about 2 million barrels lower than a year previously.

Gasoline production of 14,246,000 barrels during the week of January 12 was 242,000 barrels less than that in the previous week and 66,000 barrels or ½ of 1 percent less than output in the corresponding week a year ago. Stocks of finished and unfinished gasoline increased during the week by 1,080,000 barrels, having risen to 99,574,000 barrels. That amount was 11,110,000 barrels or 12.6 percent more than the 88,464,000 barrels reported January 13 a year ago.

Distillate fuel oil production totaled 5,325,000 barrels during the January 12 week, an increase of 32,000 over the previous week and 861,000 barrels or 19.3 percent more than the 4,464,000 barrels produced in the corresponding week a year ago. Stocks of distillate fuel were reduced by 1,840,000 barrels and then totaled 33,359,000 barrels. That amount was 2,131,000 barrels or 6 percent less than the 35,490,000 barrels held on the comparable date a year ago.

Residual fuel oil production of 8,223,000 barrels during the week was 644,000 less than in the preceding week and 1,073,000 barrels or 11.5 percent less than the 9,296,000 barrels produced in the like week a year ago. Stocks dropped during the week by 1,872,000 barrels and then totaled 40,499,000 barrels. That amount was 13,264,000 barrels or 24.7 percent less than the 53,763,000 barrels reported January 13 a year ago.

## Trends of Operations and Changes in Stocks

Figures on crude stocks are from Bureau of Mines weekly reports; all others from American Petroleum Institute weekly reports, which are estimates on Bureau of Mines basis.

**(All figures in thousands of barrels—add 000)**

**HIGHS AND LOWS OF RECENT YEARS**

| ITEM | Crude Oil Prod. | | Runs to Stills | | Crude Stocks | | Gasoline Stocks | | Gasoil and Distillate Stocks | | Residual Fuel Oil Stocks | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Barrels Daily | Week Ended | Barrels Daily | Week Ended | Barrels | Week Ended | Barrels | Week Ended | Barrels | Week Ended | Barrels | Week Ended |
| **Highs:** | | | | | | | | | | | | |
| 1941 | 4,337 | 11-22 | 4,120 | 10-18 | 266,187 | 3-29 | 99,727 | 3-29 | [1]54,983 | 11-15 | 102,448 | 1- 4 |
| 1942 | 4,337 | 2- 7 | 3,961 | 1- 3 | 263,208 | 3-28 | [1]109,281 | 3-14 | 47,861 | 11-14 | 95,857 | 1- 8 |
| 1943 | 4,436 | 11-13 | 4,331 | 12- 4 | 245,752 | 5-29 | 94,159 | 3-20 | 47,187 | 11-27 | 72,881 | 1- 2 |
| 1944 | 4,762 | 9-30 | 4,798 | 12-30 | 240,992 | 1- 1 | 89,162 | 4- 1 | 48,162 | 10-28 | 64,744 | 10- 7 |
| 1945 | [1]4,944 | 7-14 | [1]5,140 | 8-18 | 227,554 | 10-13 | 99,012 | 3-24 | 45,341 | 11-17 | 56,074 | 1- 6 |
| 1946 | 4,578 | 1-12 | 4,651 | 1- 5 | 218,193 | 1- 5 | 99,574 | 1-12 | 35,199 | 1- 5 | 42,371 | 1- 5 |
| **Lows:** | | | | | | | | | | | | |
| 1939 | [3]1,601 | 8-26 | 3,125 | 2-18 | [2]229,127 | 10-12 | 71,152 | 10- 7 | 20,722 | 4-15 | 105,397 | 4- 3 |
| 1941 | 3,364 | 1-11 | 3,490 | 1-18 | 240,399 | 11-15 | 79,923 | 10- 4 | 28,382 | 4-12 | 90,914 | 7-13 |
| 1942 | 3,297 | 7- 4 | 3,393 | 5-23 | 231,896 | 12-12 | 75,934 | 12- 5 | 29,240 | 4-25 | 72,962 | 12-26 |
| 1943 | 3,821 | 1- 9 | 3,579 | 3-18 | 232,191 | 1- 9 | 68,182 | 10-16 | 30,732 | 4- 3 | 57,596 | 12-25 |
| 1944 | 4,357 | 1- 1 | 4,228 | 2-12 | 220,258 | 9- 9 | 76,302 | 1- 1 | 30,232 | 4-19 | 49,737 | 3-18 |
| 1945 | 3,621 | 10- 6 | 3,409 | 10- 6 | [4]211,813 | 8-25 | 70,791 | 10-13 | 26,483 | 3-17 | 38,548 | 5-26 |
| 1946 | 4,548 | 1- 5 | 4,498 | 1-12 | 218,193 | 1- 5 | 98,494 | 1- 5 | 33,359 | 1-12 | 40,499 | 1-12 |

**TRENDS OF 1945 AND 1946**

| Trends in Week Ended: | Crude Oil | | | Gasoline | | Gasoil and Distillate | | Residual Fuel | |
|---|---|---|---|---|---|---|---|---|---|
| | Production Daily | Runs to Stills Daily | Stocks Week End | Production Weekly | Stocks Week End | Production Weekly | Stocks Week End | Production Weekly | Stocks Week End |
| **1945:** | | | | | | | | | |
| January 27 | 4,727 | 4,756 | 221,310 | 14,957 | 88,223 | 4,843 | 33,561 | 9,252 | 51,119 |
| February 24 | 4,777 | 4,803 | 219,351 | 15,500 | 95,972 | 4,958 | 28,753 | 9,084 | 46,713 |
| March 31 | 4,781 | 4,677 | 223,782 | 14,644 | 98,758 | 4,548 | 26,889 | 9,184 | 41,745 |
| April 28 | 4,805 | 4,780 | 223,474 | 14,633 | 94,068 | 4,636 | 28,273 | 9,379 | 39,813 |
| May 26 | 4,887 | 4,950 | 222,831 | 15,194 | 89,121 | 4,667 | 29,184 | 9,670 | 38,548 |
| June 30 | 4,903 | 4,999 | 220,781 | 15,546 | 86,472 | 4,910 | 32,213 | 9,077 | 40,488 |
| July 28 | 4,930 | 4,996 | 218,507 | 16,106 | 86,008 | 4,598 | 36,071 | 9,586 | 42,283 |
| August 25 | 4,892 | 4,931 | [4]211,813 | 15,986 | 84,693 | 4,960 | 39,782 | 9,356 | 46,201 |
| September 29 | 4,357 | 3,812 | 222,387 | 11,913 | 79,552 | 3,940 | 43,689 | 7,047 | 46,853 |
| October 27 | 4,273 | 4,838 | 224,230 | 15,530 | 74,335 | 5,159 | 43,472 | 8,691 | 45,943 |
| November 24 | 4,469 | 4,648 | 219,363 | 15,681 | 83,184 | 4,802 | 45,258 | 8,800 | 47,474 |
| December 8 | 4,459 | 4,473 | 218,355 | 14,908 | 87,004 | 4,669 | 42,406 | 8,545 | 44,743 |
| December 15 | 4,515 | 4,562 | 219,518 | 14,644 | 89,043 | 4,905 | 40,968 | 8,107 | 42,962 |
| December 22 | 4,480 | 4,511 | 220,288 | 14,768 | 91,870 | 4,708 | 38,919 | 8,539 | 41,479 |
| December 29 | 4,474 | 4,729 | 218,918 | 14,546 | 95,205 | 5,055 | 36,651 | 8,765 | 42,447 |
| **1946:** | | | | | | | | | |
| January 5 | 4,548 | 4,651 | 218,193 | 14,488 | 98,494 | 5,293 | 35,199 | 8,867 | 42,371 |
| **January 12, 1946** | **4,578** | **4,498** | ..... | **14,246** | **99,574** | **5,325** | **33,359** | **8,223** | **40,499** |
| January 13, 1945 | 4,723 | 4,580 | [5]220,331 | 14,312 | 88,464 | 4,464 | 35,490 | 9,296 | 53,763 |
| **Change:** | | | | | | | | | |
| In week | +30 | −153 | −725 | −242 | +1,080 | +32 | −1,840 | −644 | −1,872 |
| In year | −145 | −82 | −2,138 | −66 | +11,110 | +861 | −2,131 | −1,073 | −13,264 |
| In year | −3.1% | −1.8% | −1.0% | −0.5% | +12.6% | +19.3% | −6.0% | −11.5% | −24.7% |

[1] All time peak. [2] Lowest between January, 1922 and July 1, 1944. [3] Lowest since October, 1922, due to shutdown of six Mid-Continent states. [4] Lowest since December, 1921. [5] Stocks, January 6, 1945.

## *Lawson Well-Spacing Decision To Set Oklahoma Precedent*

Precedent-setting decisions concerning future well spacing in Oklahoma are in the making as the Oklahoma Corporation Commission reviews the North Lindsay well-spacing case involving the Lawson 1, deepest oil producer in the state and located in the Anadarko Basin in McClain County.

Cities Service Oil Company is seeking 80-acre well spacing on about 3500 acres and the company has been joined by a number of majors holding leases in the general area. The company contends that the extremely high cost of drilling deep wells makes wide spacing necessary if operators are to receive adequate financial returns for such heavy investments.

A group of independents headed by Frank Russell of Oklahoma City seeks an order establishing 10-acre spacing.

When the case was brought before the commission that body held that under the law it could not compromise on the size of the spacing unit unless ⅔ of the "holders of leases of record" agreed on larger or smaller drilling units. Thus far there has been no indication of compromise on the part of the majors, although some independents, landowners and royalty owners would compromise on 40-acre spacing. Thus, the commission must either grant 80-acre spacing or deny the application of Cities Service.

Hearing on the case will be resumed January 21 and final decision is to be announced early in February.

# British Buying Restrictions May Delay Iraq Line, U. S. Manufacturers Think

British purchasing restrictions may delay the progress and completion of the new Iraq Petroleum Company's pipe line, in the opinion of U. S. manufacturers and engineers. This difficulty was disclosed when ordering of materials for the line got under way recently. IPC officials hoped to start actual construction by September, but it is likely that this time schedule will be disrupted by months.

The Dollar Pool set up by Britain during the war to protect the "Sterling bloc" prevents contracts on the new IPC line coming to U. S. manufacturers. Even in those British-dominated countries where dollars are not so scarce, London forbids payment in anything but pounds or native currency. One manufacturing firm spokesman revealed that large orders from India for American diesel engines are going unfilled because of British pressure that payment be made in rupees.

The new IPC line will parallel the existing line from the Kirkuk fields to Haditha, the branching point, with legs to Tripoli and Haifa. The new line will consist of 16-inch pipe throughout, while the original line comprises 900 miles of 12-inch and 300 miles of ten-inch. The new line will be laid alongside the existing line, separated from it by about 15 yards, and will be buried in three-foot deep ditches. Total cost of the new line will be between $50 million and $55 million as against $48 million for the first line.

### More Costly

The British fiscal regulations, in the opinion of many industry experts, will delay the completion of the new IPC line by at least 12 months and will add about 15 percent to the total cost of the project.

Typical of the manner in which U. S. manufacturers are being shut out is the story told by the manufacturing firm spokesman. He reports that prolonged negotiations with the British for the 28 or 29 pumping units for the line which his company will supply, were concluded only on the agreement to turn out the pumps at the company's plant in England.

Production bottleneck may be expected as a result of this Sterling protection. For instance, the line is initially held to 16-inch diameter because no larger pipe can be rolled in Britain. Furthermore, all British mills cannot roll more than 22 to 23 miles a week of this pipe, while on American firm could turn it out at the rate of five miles a day. Similar bottlenecks are expected in other installations.

### Dissatisfaction Voiced

The attitude of American manufacturers at the British "shut-out" policy varies, but generally widespread dissatisfaction is being voiced. A pipe firm export official said his company was so jammed with backlog orders that it could not participate in the IPC bids even if asked. However, a spokesman of another firm reported that his company expected to work into new business soon and believed it is seriously handicapped by the British regulations.

Under such conditions, it is highly questionable when the IPC line can be completed. It required from 1930 to 1935 to build the existing line and during that period almost ideal conditions prevailed in labor, materials and transportation.

One observer who has been over the ground lately predicts that the construction of the new line may take longer than the first.

## *FPC Approval of 30-Mile Gas Line in Indiana Is Sought*

Authority to construct 30 miles of six-inch solid welded pipe line from the Panhandle Eastern Pipe Line Company system near Danville, Ind., to a connection with the Indiana Gas and Water Company line at Martinsville, Ind., at a cost of $245,000 has been asked of FPC by the Kentucky Natural Gas Corporation.

The company, which receives its gas supply from Panhandle and serves the Indiana company and other customers, based its application upon anticipated industrial expansion in Indiana's territory which will require an increase of almost 100 percent in supply within the next five years.

## *Humble Increases Capacity Of East Texas Trunk Line*

Humble Pipe Line Company has increased the capacity of its ten-inch trunk line that transports crude runs from the Hawkins and Sand Flat low-gravity fields in East Texas from 27,500 barrels to 32,700 barrels daily by using two additional pumping units at Gladewater station. Humble restricted its purchases and runs from the Hawkins field to 80 percent of the allowable during December because of inadequate pipe line outlet and the curtailment of tank car shipments from its Hawkins field rack.

## *Lone Star Begins Building 80-Mile East Texas Line*

Lone Star Gas Company has started construction of an 80-mile, 14-inch natural gas transmission line from the Carthage field, Panola County sector of East Texas, to the Opelika field, Henderson County, where connection will be made with its main system.

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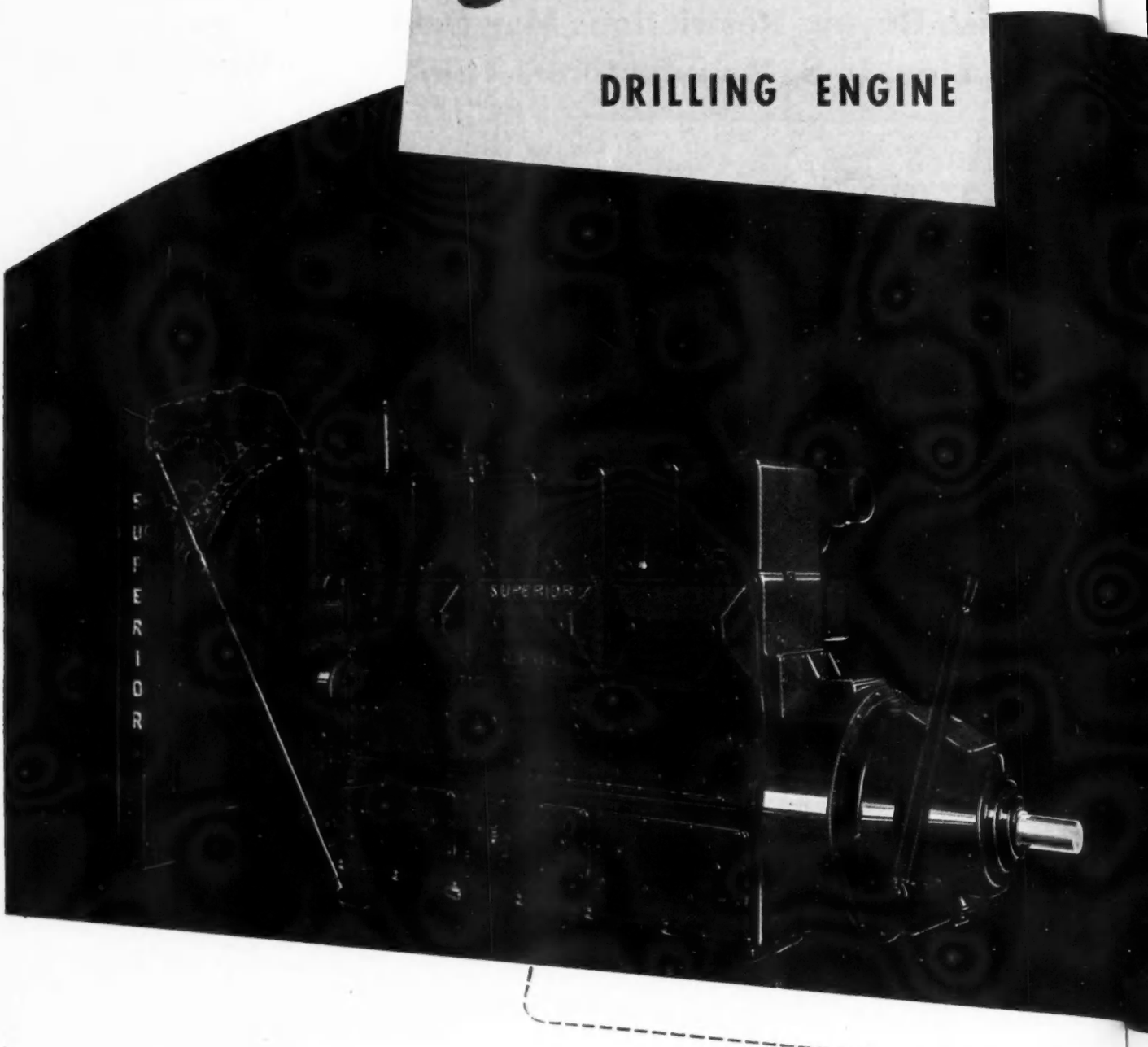


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# British, U.S. Firms Paying Russia Most Of Roumania's Reparations, Is Charge

British and American owned oil companies are paying the lion's share of Roumania's reparations to Russia, John Thompson, Chicago Tribune staff writer, declares in a dispatch from Ploesti, Roumania.

"They are going deeper into the red because they are forced to sell their product at 50 percent less than the cost of production," Thompson declares.

Thompson also cited that in addition the companies face the prospect of exhausting Roumania's fields in five or six years.

"Steadily declining production is attributed to a lack of drilling equipment and transport and the need for constant exploration of the sub-Carpathian fields," he said.

These conclusions were reached after a study of the oil industry by Thompson, who said they express the views of oil company executives.

Thompson said wages have increased nearly 500 percent in the oil region and the cost of living has skyrocketed. Oil companies must provide food at official prices for the 45,000 workers and their families and provide each worker with clothes and shoes.

The 1945 oil production amounted to 4.5 million tons (28 million barrels), Thompson said. All except a trickle went to the Russians, who are taking as much as they can in fear the oil fields will be exhausted. This year production is estimated at 4,225,000 tons (26.5 million barrels), half of the peak reached ten years ago. In October, 1944, the Russians seized 50,000 of the 80,000 tons of equipment, such as tubing, casing, and drills.

Thompson declared that some foreign observers suspect Russia plans to absorb the Anglo-American and Roumanian companies.

"These observers point to the Sovrom Petrol Company which was organized last July with supposedly equal contributions by Russia and Roumania.

"Russia's contribution consisted of confiscated installations, casings, and other material, and shares of two so-called German companies bought by Nazis from French and Belgians," he said.


# IMPORTANT...

Considered by oil men to be the most valuable reference work published for the industry, the Yearbook-Forecast Number of The OIL WEEKLY takes on special significance this year. Adjustments to peace time and to new world wants are fairly settled after the most momentous era in petroleum history. In that era spectacular accomplishment vied with coordinated initiative unparalleled in the industry's history.

The results naturally have painted a statistical picture that is much different from the picture of normal peace time years. Consequently the coming 1946 Yearbook-Forecast Number (to be published February 11) will be more indispensable than ever in plotting future action and contemporary accomplishment.

Because of the still acute paper shortage it is necessary for us to know right away the requirements for extra one-dollar copies of this issue. Time lost now may mean disappointments after February 11.

Playing ball with us means in this situation playing ball with your company and your own interests. Send in your order for extra copies **NOW!**

**1946** *Yearbook-Forecast* **NUMBER**

**THE OIL WEEKLY ☆ FEBRUARY 11**


## *Oklahoman Describes Japan's Oil Shortage at War's End*

So effective was the Allied blockade of Japan that the Japanese were reduced to cocoanut oil and alcohol for fuel at the end of the war, according to William G. Johnston of Oklahoma City who served as an expert on the Pauley Reparations Commission and who has just returned from an extended tour of Japan and Korea.

Johnston reported that only two tankers of fuel oil were left when Japan surrendered and that most of her fighting planes were grounded because of the lack of fuel.

"Japan cannot produce nearly enough oil for her minimum needs and will have to import from 10 to 15 million barrels annually to meet minimum peacetime requirements," Johnston declared.

Johnston reported that Japan started the war with 63 million barrels of oil in storage. In addition the nation was operating 60 refineries and nearly as many synthetic plants which produced oil from coal. By the end of the war she had only 75,000 barrels of fuel oil in two tankers and 55 percent of her refineries had been bombed out.

"Japan never will produce enough natural or synthetic oil to fight another war and we can minimize her as a war threat simply by controlling her imports of oil," Johnston said.

The Pauley Commission was headed by Edwin W. Pauley of Oklahoma, who was appointed by President Truman to determine what industrial facilities are now available in Japan, with a view to transferring such equipment as is not needed in her peacetime economy to those nations overrun by Japan.

## *Universal Products to Aid In China's Oil Development*

Universal Oil Products Company plans aid in the establishment and development of a modern petroleum refining industry in China under terms of an agreement with China's National Resources Commission.

Dr. Gustav Egloff and W. B. Shanley, Universal engineers, will leave for China soon to make a preliminary study. The engineers will investigate possibilities for large-scale production of both crude and refined oil products in the Yumen field on the southern edge of the Gobi Desert, discovered in 1939, and now producing about 4000 barrels of oil daily from 25 wells, ranging in depth from 500 to 1400 feet.

## *Guatemala Exploration*

The firm of Dorion Brothers has been awarded an exploration concession by the Guatemalan government covering an area of slightly less than 250,000 acres. Dorion Brothers have acquired the grant for oil prospecting, and have assured the government of their intention to become active in the exploration of their tract.

## ☆ Oklahoma

### *Iron Chapel Field Deep Test Is Completed by Carter*

Oklahoma reports first 1946 discoveries; Carter finals Iron Chapel deep test; Skelly hits east of Velma area; Leach and Warren of Tulsa get gasser in Hughes; test west of Kellyville looks like pool opener.

**McClain County:** The Carter Oil Company completed Mottinger 1, CNW NW 5-6n-3w, pool opener for the Iron Chapel field in the deep Anadarko Basin play of McClain County to give Oklahoma one of its deepest producing wells. The test was completed flowing 689 barrels of clean oil in 16 hours. Production is from the Bromide between 10,812-922 feet. Gravity of the oil is 40.7 degrees. Total depth is 11,230 feet. Tools are being moved in for Mary Mottinger 1, offset in the CNW SW of Sec. 5.

At the same time Carter completed Autry 1, CSE SW 9-7n-3w, in the Washington pool area after crews swabbed about 200 barrels of clean oil in 6 hours. The well was drilled to 10,682 feet, total depth, and plugged back to 10,647 feet.

Also in the Washington pool Carter was developing a new producing horizon at Vierson 1, CSE NE 8-7n-3w, as crew swabbed considerable oil from the Hunton zone through perforations from 9668-92 feet. Southeast of Criner the company was swabbing at Hawkins 1, CNE NE 34-6n-3w, after plugging back from 9344 feet to 8363 feet. The well was showing both gas and oil in this horizon.

**Stephens County:** About 4 miles east of the Velma area, Skelly Oil Company apparently opened a new oil pool at Williams 1, SE SW SE 16-1s-4w, rated good for about 100 barrels daily. The strike is on a small structure near the Carter County line. Drilled to 7158 feet, total depth, operator plugged back to 5620 feet and set casing at 5416 feet for a test of the Dornick Hills sand in the basal Pennsylvanian zone. While the well cleaned out it swabbed about 10 barrels of 23-gravity oil an hour. Operator is installing reverse circulation equipment and a pumping unit for final production test. The well was drilled on a seismograph prospect.

**Hughes County:** Tom Leach and O. F. Warren of Tulsa have opened a new Booch sand gas pool about 4 miles northwest of the Wetumka pool and judging from other tests in the general area the new strike may prove up 2 and possibly 3 sections. The discovery is the Brooks 1, NE NE SW 7-9n-10e, which Leach located after working out a structure from a study of the surface geology. After encountering some water in the Booch which was shut off the well was finaled to test 5¼ million cubic feet of gas per day, 930 pounds rock pressure from 2658-88 feet, total depth.

**Creek County:** A new producing area looms about 2½ miles west of the Kellyville pool at Skelly's Hobart 1, NE SW SE 8-17n-10e, now being cleaned out and looking like a 50- to 100-barrel-daily pumper from the Wilcox sand. The sand was topped at 2974 feet and after drilling in 2 feet the well filled with 350 feet of light oil.

**Cleveland County:** Skelly's Divis 1, SE SE NW 30-10n-3w, extends the West Moore pool 1980 feet west to make the Wilcox sand prospects in the pool look more promising. After drilling to 8859 feet below the Wilcox and backing up to 8825 feet, pipe was perforated in several zones and on a 20-hour gauge put 390 barrels of oil into tanks. Shut in for 12 hours it was reopened for 40 minutes and flowed 30 barrels under 750 pounds tubing and 450 pounds casing pressures.

**Harper County:** Continental Oil Company and The Ohio Oil Company have joined in an important deep wildcat venture which will shed further light on Anadarko Basin prospects in Western Oklahoma. Work order has been issued for Howard 1, SW SW SE 15-27n-21w. The wildcat is spotted about 18 miles northeast of a gas-distillate well drilled some years ago. Location is on a unit lease comprising all of Secs. 12 and 22 and the east half of Sec. 16 and the east half of Sec. 21. Ohio owns the southwest of Sec. 15 with Champlin Refining Company holding the northwest and southeast of Sec. 21. Allied Oil Corporation owns ½ interest in approximately 27,000 acres and is participating in the play.

## ☆ Kansas

### *Chase Pool of Rice County Extended by Lauck-Moncrief*

Lauck-Moncrief extends Chase pool; Continental logs gas in Barber County wildcat; Stanolind to pump Adams well; Hartman finals test east of Rainbow Bend; Sohio attempts water shutoff in Trego County wildcat.

**Rice County:** Lauck-Moncrief's Logan 1, approximately a mile west of the Chase pool, is being completed as an oil well in the Arbuckle lime at 3305 feet. Located in SE SW SE 12-20s-10w, the test topped Lansing lime at 2991 feet and Arbuckle at 3291 feet. The hole filled with 1500 feet of oil and pumping equipment is being installed. Additional locations are to be staked shortly between the well and the Chase pool.

**Barber County:** Continental Oil Company continued testing at Skinner 1, SE SE NE 33-31s-15w, wildcat about 4 miles northwest of the Deerhead pool after logging an estimated 2 million cubic feet of gas in the Mississippi lime through perforations at 4718-20 feet. Mississippi was topped at 4697 feet. Good shows were also logged in the Lansing-Kansas City lime topped at 4152 feet. Operator killed the gas and

## Wells Completed in United States in Week Ended January 19, 1946

**Data preliminary and subject to revision. Revised and more complete data on all completions shown in monthly summary of drilling, published in second issue of each month. More detailed data on wildcats published in third issue of each month.**

| State or District | FIELD COMPLETIONS: New Wells *Oil | Gas | †Input | Dry | Total | Old Wells Deepened | WILDCAT COMPLETIONS: *Oil | Gas | Dry | Total | ALL COMPLETIONS: This Week | Last Week | Cumulative: This Year | Last Year |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Alabama | 1 | .... | .... | .... | 1 | .... | .... | .... | .... | .... | 1 | .... | 2 | 2 |
| Arkansas | 1 | .... | .... | .... | 1 | .... | .... | .... | .... | .... | 1 | 8 | 9 | 8 |
| California | 29 | 2 | .... | .... | 31 | 1 | .... | .... | 9 | 9 | 41 | 46 | 124 | 118 |
| Colorado | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 3 | 5 | 3 |
| Florida | .... | .... | .... | .... | .... | .... | .... | .... | 1 | 1 | 1 | 1 | 2 | 1 |
| Georgia | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1 |
| Illinois | 54 | .... | 1 | 11 | 66 | 3 | .... | .... | 10 | 10 | 79 | .... | 79 | 100 |
| Indiana | 7 | 1 | .... | 3 | 11 | 1 | 3 | .... | 3 | 6 | 18 | .... | 18 | 13 |
| Kansas | 25 | 8 | .... | 5 | 38 | 1 | 1 | .... | 13 | 14 | 53 | 5 | 106 | 76 |
| Kentucky | 18 | 3 | .... | 10 | 31 | .... | 1 | .... | 6 | 7 | 38 | .... | 38 | 35 |
| Louisiana | 19 | 1 | .... | 3 | 23 | .... | 2 | .... | 2 | 4 | 27 | 43 | 70 | 58 |
| North Louisiana | 11 | 1 | .... | 1 | 13 | .... | .... | .... | 2 | 2 | 15 | 21 | 36 | 23 |
| South Louisiana | 8 | .... | .... | 2 | 10 | .... | 2 | .... | .... | 2 | 12 | 22 | 34 | 35 |
| Michigan | 3 | 1 | .... | 4 | 8 | .... | 1 | .... | 5 | 6 | 14 | 11 | 53 | 46 |
| Mississippi | 3 | .... | .... | .... | 3 | .... | .... | .... | 1 | 1 | 4 | 2 | 12 | 21 |
| Missouri | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 2 |
| Montana | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 19 | 22 | 7 |
| New Mexico | 5 | .... | .... | 1 | 6 | .... | .... | .... | .... | .... | 6 | 9 | 17 | 31 |
| New York | 15 | .... | 10 | .... | 25 | .... | .... | .... | .... | .... | 25 | 25 | 75 | 37 |
| Ohio | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 3 | 6 | 38 |
| Oklahoma | 24 | 1 | .... | 11 | 36 | 1 | .... | .... | .... | .... | 37 | 31 | 129 | 120 |
| Pennsylvania | 27 | .... | 15 | .... | 42 | .... | .... | .... | .... | .... | 42 | 49 | 140 | 120 |
| Texas | 89 | 4 | 1 | 34 | 128 | 4 | 1 | .... | 26 | 27 | 159 | 204 | 455 | 377 |
| E.Tex.Bor. Co.'s | .... | 2 | .... | .... | 2 | .... | .... | .... | .... | .... | 2 | 11 | 13 | 2 |
| Rest of E. Texas | 6 | .... | .... | .... | 6 | .... | .... | .... | 2 | 2 | 8 | 8 | 22 | 13 |
| North Texas | 41 | .... | 1 | 23 | 65 | 1 | 1 | .... | 6 | 7 | 73 | 32 | 135 | 103 |
| W. Central Tex. | 4 | 1 | .... | 2 | 7 | .... | .... | .... | 1 | 1 | 8 | 22 | 38 | 14 |
| West Texas | 18 | .... | .... | .... | 18 | 2 | .... | .... | 3 | 3 | 23 | 44 | 84 | 95 |
| Tex. Panhandle | 3 | 1 | .... | .... | 4 | 1 | .... | .... | 2 | 2 | 7 | 18 | 26 | 35 |
| G. Coast, Upper | 5 | .... | .... | 4 | 9 | .... | .... | .... | 2 | 2 | 11 | 24 | 40 | 34 |
| G. Coast, Lower | 11 | .... | .... | 4 | 15 | .... | .... | .... | 5 | 5 | 20 | 33 | 74 | 53 |
| Southwest Texas | 1 | .... | .... | .... | 1 | .... | .... | .... | 1 | 1 | 2 | 11 | 16 | 25 |
| S. Central Tex. | .... | .... | .... | 1 | 1 | .... | .... | .... | 4 | 4 | 5 | 1 | 7 | 3 |
| West Virginia | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 13 | 26 | 36 |
| Wyoming | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | 3 | 6 | 5 |
| Total U. S. | 320 | 21 | 27 | 82 | 450 | 11 | 9 | .... | 76 | 85 | 546 | 475 | 1,394 | 1,255 |

* Includes distillate wells. † Includes salt water disposal wells.

plans to test several zones at 4160-4483 feet. Total depth is 5167 feet in dry Arbuckle.

**Meade County:** Stanolind Oil & Gas Company was installing pumping unit at H. C. Adams 1, SWC 7-35s-29w, prospective pool opener 5 miles east of the Adams gas field. At 6338 feet, total depth, and Mississippi lime topped at 5845 feet, operator has tested the zone through perforations between 6018-40 and 6090-6125 feet, recovering about 75 barrels of oil plus 2 barrels of water per day.

**Cowley County:** W. L. Hartman has a pool opener about a mile east of the Rainbow Bend pool at Smith 1, SE SE SW 15-33s-3e. On pump production test the wildcat made 75 barrels of oil per day from Bartlesville sand at 3259-62 feet. It was drilled to 4265 feet testing dry in the Arbuckle lime.

**Trego County:** Sohio Petroleum Company was attempting a water shutoff at Schaefer 1, NE NE NW 11-12s-21w, wildcat about a mile east of the Ogallah pool, which had 300 feet of oil and 1000 feet of water from the Reagan sand, topped at 4050 feet. Fair porosity and saturation were reported in the Arbuckle but an acid treatment failed to recover commercial oil.

### Missouri

O. R. Newcomer et al's Zeikle 1, CSW NW 27-55n-29w, about 6 miles west of Polo in Caldwell County and on the west edge of the Polo gas pool, is drilling below 1152 feet.

## ☆ New Mexico

### *Three Penrose-Skelly Tests In Process of Completion*

The apex of the Ellenburger structure in the Penrose-Skelly field shifted northeast of the discovery, and 3 wells are in process of completion; Chaves County wildcat testing Devonian; Eddy County discovery develops oil flow from upper pay.

**Chaves County:** Richfield Oil Corporation's Coll 1, C NW SE 18-11s-27e, was scheduled to reacidize perforations at 6320-30 feet in Devonian, topped at 6240 feet with elevation of 3673 feet. This wildcat passed up nominal flow of gas with water in drilling the Devonian section, which has become an important source of sweet crude in the West Texas portion of the Permian Basin within the past 2 years.

**Lea County:** Magnolia Petroleum Company's Brunson-Argo 9, northeast offset to the Ellenburger discovery for the Penrose-Skelly field, entered the Ellenburger at 7675 feet, and flowed oil through tester when drilled to 7881 feet in Granite, topped at 7879 feet. This is the highest well structurally and the second to reach Granite.

Humble Oil & Refining Company's Greenwood 8, south offset to the discovery, flowed 58 barrels of oil hourly after using acid through perforations in the upper pay at 8004-30 feet, and was testing the lower zone through perforations at 8090-8140 feet. Rowan Drilling Company's Elliott 3-B-9, northwest offset to the discovery and 73 feet low, flowed oil from each zone, then set pipe at 8189 feet or 7 feet off bottom. It was drilled 166 feet in the Ellenburger.

**Drinkard Field:** The Ohio Oil Company's Muncy 1, C SE SE 24-22s-37e, ½ mile west of production, entered granite-wash at 7260 feet and quit in solid granite at 7298 feet, being the highest granite top for the county. Incomplete drill-stem test at 7129-7298 feet yielded 3100 feet of gas-cut mud. Pipe will be set to test nominal saturation in the Yeso, while prolific flow of sweet gas was passed up in the 5400-foot Glorietta.

Lion Oil Company's Wylie 1, ½ mile east of the most southerly producer, was running electrical formation survey at 7097 feet to determine whether to set pipe after logging minor showings in the Yeso. Western Gas Company's Parcell-Federal 1, C NE SE 6-23s-38e, gave promise of making a small oil producer after using 1500 gallons of acid in the Yeso at 6862-7080 feet.

**Eddy County:** Forest E. Levers et al's Levers 1-B, C SE NE 34-16s-29e, improved its outlook for the opening of a new pool in flowing 30 barrels of oil daily from perforations at 2360-63 feet. A small pumper was indicated after nitro shot in open hole at 2630-75 feet. A second test has been started in the northeast corner of the tract.

## ☆ West Texas

### *Water Level Is Reached by Texas' Ellenburger Strike*

Water level reached by Ellenburger strike situated across fault in TXL area; Middle Permian production passed up by wildcat on southwest side of Foster field; north expansion due in Wheeler multi-pay field; Yoakum County deep project occupies high structural position.

**Ector County:** Stanolind Oil & Gas Company's Kayser-Unit 1, Ellenburger project for a 4-section unit and 1¼ miles southwest of the Foster field, was drilling dry lime at 8855 feet. This wildcat confirmed its structural position when a drill-stem test of Middle Permian, possibly Clear Fork, at 8516-60 feet returned gas to the surface within 8 minutes and headed oil while pulling drill pipe. The recovery consisited of 1530 feet of oil, with about 10 percent rotary mud.

Cities Service Oil Company's Parker-Wentz 1, southwest edge of the Harper field, is drilling lime below 9280 feet, having logged base of the Permian at 8315 feet and top of Pennsylvanian (Canyon) at 8485 feet.

The Texas Company's T.P.-Fraser 1-D, which attracted attention recently due to encountering prolific oil flow from Ellenburger, topped at 10,740 feet, tested oil and sulphur water at 10,925-75 feet. Pipe was cemented on bottom to complete through perforations. This well has 180 feet or more of effective pay above the water table. It is down-dip on a fault that cuts the southeast sector of the TXL field.

Texas' Connell 29, 1½ miles west of the Penwell-Judkins area, continued to encounter water in plugging back and perforating by stages in the Ellenburger, logged at 9525-9675 feet. Next perforatoins will be opposite promising shows in the Devonian, topped at 7048 feet.

**Winkler County:** Sunray Oil Corporation's Wheeler 1, north edge of the Wheeler multi-pay field, cemented 5½-inch casing on bottom at 10,680 feet in Ellenburger, topped at 10,540 feet. This outpost unloaded in drilling out cement to 10,675 feet preparatory to perforating. The unexpected oil flow was from defective plug or leaky casing. Mid-Continent Petroleum Corporation's Wheeler 2, northeast edge of the field, is drilling below 9700 feet, correlating slightly higher on all markers below the Permian than the south offset. Sun Oil Company's Wheeler 2, southwest outpost, was making drill-stem test of Basal Silurian at 9180-9320 feet. It is lower structurally than the dual-producer on the lease. Stanolind-Shell's Waddell Brothers 1, northwest outpost that qualified as a Silurian discovery pumper, is showing some indications of making a commercial well after acidizing Devonian perforations at 8600-50 feet. The latter is the only Ellenburger failure for the area.

**Keystone-Ellenburger Area:** Stanolind's Taylor 1, a mile east of Ellenburger production and a failure in the latter zone at 10,245-80 feet, swabbed and flowed 16 barrels of 45-gravity oil on 8-hour test from open hole at 9650-9770 feet in Middle Simpson. More promising production was passed up in the Devonian and Silurian.

**Pecos County:** Phillips Petroleum Company's Elsinore 1, GC&SF Ry. 53, Block D, currently the deepest active wildcat in the district, is drilling unidentified shale and lime below 11,090 feet.

**Yoakum County:** Drilling & Exploration Company, Inc.'s Davis 1-D, projected 12,000-foot Devonian test and on the northwest edge of the Wasson field, is drilling below 7510 feet in Tubb zone, topped at 7080 feet. This prospect correlates 171 feet high to the Jones Ranch field's Devonian discovery 6⅜ miles south by west. The Clear Fork was entered at 6490 feet, correlating 231 feet high on this marker to a 7950-foot failure 3⅞ miles southwest.

**Crane County:** Humble Oil & Refining Company's Cowden 1, wildcat that encountered an over-thrust condition involving 2 zones of Simpson and Ellenburger in drilling to 9460 feet, was abandoned after testing a nominal amount of oil with salt water in 2 zones of Devonian perforations. Sinclair Prairie Oil Company's Cowden 1, northwest offset and on a short-term lease, was drilling lime at 4130 feet, correlating low.

Magnolia Petroleum Company's Flood-State 2, ¼ mile north of its Simpson discovery pumper, was abandoned after testing water in Ellenburger at 6025-70 feet. Standard Oil Company of Texas' Tucker 1, same area, was drilling at 6220 feet in Ellenburger, topped at 6084 feet, or 28 feet low to the above failure. However, Tucker 1 passed up a commercial gas flow in the 5700-foot Simpson.

Sid Richardson's Dawson 1, Sec. 2, A. L. Brigance Survey, was drilling lime at 6035 feet, having entered the Devonian at 5670 feet, carrying nominal evidence of gas in upper section.

Nine of the 13 tests being drilled by The Atlantic Refining Company on as many university leases that require production by mid-November have progressed below the 8200-foot level, and in the Devonian. It has not been determined as to whether all will be carried to the Ellenburger and attempt dual completion. The company's discovery earned a bonus allowable of 400 barrels daily from the 2 zones.

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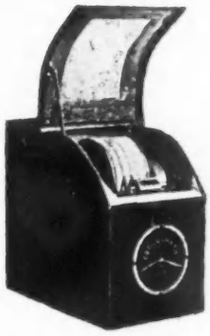

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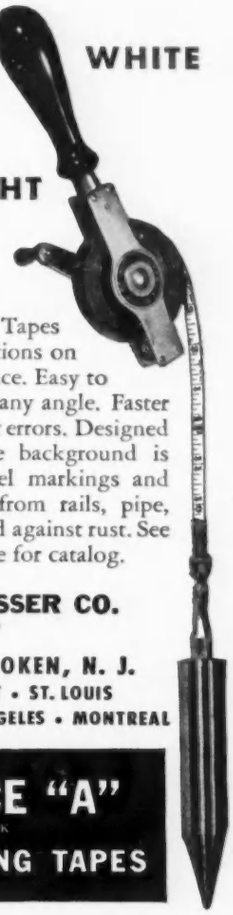

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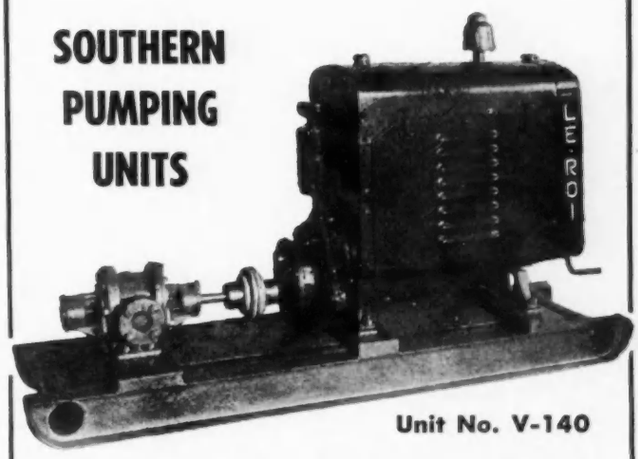


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## ☆North Texas

### Montague County Test Passes Up Thin Oil Zone in Bend

Montague County wildcat pases up thin oil zone in Bend conglomerate; Archer County has new Strawn discovery; second failure recorded for Crain area, Young County.

**Montague County:** Nu-Enamel Oil Operating Company's Admire 1, G. W. Fisher Survey and 3½ miles north of Bonita, recovered free oil and oil- and water-cut mud when tester was used in Bend conglomerate at 5085-90 feet, thus enhancing the outlook for a discovery in the immediate area. The wildcat was drilling granite-wash at 5570 feet, and this zone is usually followed by granite in the area.

Continental Oil Company's Jarrell 1, TE&L Co. 3433 and 2½ miles southwest of the McNutt field, was swabbing down for production test of perforations at 5843-63 feet in Bend, topped at 5704 feet, having plugged back from water in Ellenburger at 6803-7095 feet. This wildcat logged its most effective Bend lime saturation at 5715-34 feet.

A. R. Dillard et al's Posey 1, N. Kimbro Survey, west outpost for the north end of the Hildreth field, was abandoned at 6211 feet. American Trading & Production Corporation's Henry 1, east central part of the N. Kimbro Survey, tested 4500 feet of water in the Bend conglomerate at 6026-45 feet. It was drilled to 6202 feet, and will set pipe to test the upper Bend, which logged oil saturation.

S. D. Johnson et al's Crenshaw 1, W. Wallace Survey and 1⅝ miles northwest of the Belcherville 5300-foot field, pumped 75 barrels oil and 4 barrels of water initial from perforations at 5550-65 feet. This production is from the bottom zone of porosity found in the nearby field.

**Archer County:** Fred M. Manning, Inc.'s Ford 1-A, NW SW NW H&TC Ry. 16, Block 1, a mile east of the Manning-Ellenburger area and on a trend with the Browning muti-pay sector of the Vogtsberger field, swabbed 125 barrels initial from Upper Strawn sand at 4130-63 feet.

**Young County:** L. T. Burns et al's Dunagan 1, a mile north of the Crain 3-well pool, was abandoned in Mississippi at 5253 feet, having correlated from 50 to 72 feet low on principal markers.

### Louisiana Hearings Set

Commissioner Joseph L. McHugh of Louisiana has announced that a statewide hearing originally scheduled in December relative to the feasibility of prorating gas has been rescheduled for February 15, at the Monteleon Hotel, New Orleans.

The Louisiana Conservation Department will hold a hearing January 25 at Jennings, La., relative to rules on gas production and recycling in South Jennings and a unitizing project in the Lake Arthur field.

### Bace Officials Named

Stockholders of the Bace Oil Company, Wichita, Kan., reelected five directors and selected two new members to serve on the board. New directors are Richard E. Ray and Hayden Atchison. Vic E. Baum, Verner G. Hurt, O. H. Shoup, Jr., L. R. Gilleran and Delbert Roskam were reelected. The corporation's officers include Baum, president; Shoup and Atchison, vice presidents; Gilleran, secretary-treasurer, and J. E. Baum, assistant secretary-treasurer.

### Gulf Publishing Company Has New Circulation Manager

Howard Donahue, formerly of Hartford, Conn., joined the Gulf Publishing Company, Houston, January 15 as circulation manager. He was sales and advertising manager of the Abbott Ball Company of Hartford, Conn., and resigned the post to assume his new duties in promoting THE OIL WEEKLY, *Petroleum Refiner, Production Composite Catalog* and the *Refinery Catalog.*

Howard Donahue

During his 15 years with the Abbott organization, Donahue had articles published on mail sales promotion and other business subjects in *Printer's Ink, Industrial Marketing,* and other periodicals. He also was actively interested in several technical and professional organizations, including the American Electro-Platers' Society, National Industrial Advertisers' Association, National Federation of Sales Executives, and Hartford Sales Manager's Club.

### Airline Official to Address Tulsa Nomads January 23

The Tulsa Chapter of Nomads will hold its sixth annual reception and dinner at the Tulsa Club January 23.

Col. J. Carroll Cone, vice president of Pan American World Airways, New York, will speak on "International Air Transport Policy." Colonel Cone is president of the Wings Club.

### Indiana Changes

Lisle Wallace, of Sheridan, Indiana, has been named to succeed James W. Carr, of Indianapolis, as a member of the Indiana Department of Conservation. Ivan Hennings, of South Bend, has been named chairman of the commission. Other commissioners include Benton Jay Bloom, of Columbia City, and Cornelius O'Brien, of Lawrenceburg. Milton Matter is director of the department.

### Harbar Granted Charter

The Harbar Drilling Company, Wichita, Kansas, converting to corporate status, has been granted a charter to operate as Harbar Drilling Company, Inc., capitalization 500,000. Formerly a partnership of Harry S. Connelly Marion Connelly, W. A. Grant and Elaine Grant, Harbar is one of the largest drilling organizations in Kansas. The stock of the newly formed corporation is held by the former partners.

### Oklahoma Utilities Group Is Headed by A. F. Potter

A. F. Potter, district manager for The Gas Service Company, Bartlesville, Okla., has been elected president of the Oklahoma Utilities Association for 1946, succeeding D. S. Kennedy, vice president and treasurer, Oklahoma Gas and Electric Company, Oklahoma City.

Other officers chosen include S. I. McElhoes, director, Public Service Company of Oklahoma, first vice president; L. A. Farmer, president, Northern Oklahoma Gas Company, Ponca City, Okla., second vice president; E. C. Joullian, president, Consolidated Gas Utilities Corporation, Oklahoma City, treasurer; Miss Kate Niblick, Oklahoma City, secretary.

Directors elected for three-year terms include Glenn C. Kiley, vice president, Oklahoma Gas and Electric Company; and Frank B. Long, vice president, Oklahoma Natural Gas Company, Tulsa.

Directors elected for one-year terms include R. K. Lane, president, Public Service Company of Oklahoma, Tulsa; J. Y. Wheeler, Oklahoma manager for Lone Star Gas Company, Ardmore; W. L. Woodward, president, Zenith Gas System, Inc., Alva; and Joullian and McElhoes.

Directors who will continue to serve during the current year include L. A. Farmer, J. C. Happenny, president, Oklahoma Power and Water Company, Sand Springs; W. R. Thomas, Oklahoma manager, Southwest Natural Gas Company, Ada; and Potter.

### Indian Lands Offered

Sealed bids for oil and gas leases on 5689.97 acres of restricted Indian lands of members of the Five Civilized Tribes will be received at the office of the superintendent at Muskogee, Okla., up to 10 a.m., February 6. Leases are being offered in Creek, Okfuskee, McIntosh, Hughes, Seminole, Haskell, Pontotoc, Garvin, McClain, Grady, Stephens, Carter and Love counties.

## ☆East Texas

### Young Horizon Yields Water In Hopkins County Prospect

Young horizon yields salt water in Hopkins County prospect; Travis Peak failures noted in Morris and Van Zandt counties; Houston County wildcat to drill through the Woodbine.

**Sand Flat Field:** Sun Oil Company's Christian 1, west offset to the most northerly producer in the main portion of the field, flowed 408 barrels initial through ½-inch choke from Paluxy perforations at 7051-93 feet. Humble Oil & Refining Company's Ramey 1, J. G. Garrett survey and a northeast outpost, was making production test of Paluxy perforations at 7294-7322 feet.

**Hopkins County:** Delta Drilling Company's Livington 1, Nacogdoches University survey 10 and a failure in the Travis Peak at 8425-8642 feet, tested salt water in making preliminary perforations at 8155-65 feet. It will perforate higher by stages, with gas-distillate production anticipated in the upper section of the Gloyd, topped at 8011 feet. This

wildcat is counted on as the first discovery for the new year in the district.

**Van Zandt County:** Humble's Lutz 1, Jas. Allison survey and 3 miles west of Jackson, failed to encounter showings in drilling to Travis Peak at 8405 feet, and is abandoned.

**Morris County:** H. L. Hunt's Carlton Robison 1, John Brandon survey and 2½ miles northeast of Daingerfield, took side-wall cores with negative results after fulfilling depth contract at 8431 feet in Travis Peak, topped between 8220-30 feet. It is slated to be abandoned.

**Anderson County:** Humble's Todd 1, initial deep test for the Boggy Creek field, tested dry in Rodessa at 10,048-143 feet, and was drilling anhydrite and shale at 10,215 feet. The company's Freeman 1, Brushy Creek prospect and also slated to drill to 11,000 feet, or water in the Travis Peak, was drilling shale and lime at 8015 feet.

**Houston County:** Fred M. Manning, Inc.'s Houston County Timber Company-Magnolia 1, P. Miranda survey and 5 miles southeast of Weches, was drilling shale at 6385 feet, having tested salt water at 6038 feet in Woodbine, topped at 6030 feet with elevation of 310 feet. This wildcat may continue to the Edwards lime on the strength of a recent gas-distillate discovery in Trinity County.

**Smith County:** Humble's Pool 1, indicated Paluxy oil discovery for the Mount Sylvan prospect and 7.4 miles southeast of the Van field, is running 5½-inch pipe to complete through perforations. The well is bottomed in dry Glen Rose at 7600 feet.

Phillips Petroleum Company's Englander 1, 3½ miles south by west of the South Tyler field and the deepest test in the district, was drilling sandy-shale at 13,675 feet. It is seeking production in the Smackover.

**Wood County:** Magnolia's McCreight 1, 3½ miles northwest of the Quitman field, was drilling sandy-shale at 8580 feet without shows in the Basal Rodessa.

## ☆ East Texas Border

### *Shelby and Marion Deep Tests Continue Drilling*

Shelby and Marion County deep wildcats continue drilling; Whelan field well sets casing to test; 3 new field tests located.

**Shelby County:** Humble Oil & Refining Company's wildcat Pickering Lumber Company 1, St. Francois Survey, is drilling below 12,073 feet. Operators have not confirmed report that the well logged showings around 11,800 feet.

Hiawatho Oil Company's wildcat, Pickering Lumber Company 1, W. J. Brittian Survey, is drilling below 5913 feet after recovery of salt water on a previous drill-stem test.

Southern Production Company has derrick up for a new location in Joaquin field, Z. R. Childress 1, Thomas Bristow Survey.

**Harrison County:** Placid Oil Company's Whelan field test, Mattie Lee Knox et al 1, Benjamin Parker Survey, is at total depth of 8280 feet and preparing to set casing.

Arkansas Fuel Oil Company's Mrs. Zack Abney 1, James B. Stewart Survey, was staked in the Waskom field.

Bert Fields et al's wildcat, Furrh 1, L. Womack Survey, topped Paluxy by samples at 2687 feet, and is drilling below 4765 feet.

**Marion County:** Magnolia Petroleum Company's S. L. Orr 1, R. B. Fowler 1, is drilling below 8295 feet toward a 10,000-foot goal before testing upper horizons which have carried shows of oil.

J. T. Mostyn's Gray 1, on the 16-acre Gray tract in A. Coore Survey, 2 miles west of Tree City in Smithland field, will be offset to H. C. Owens' D. E. Bourne 1, completed pumping 40 barrels per day from perforations at 2314-20 and 2280-90 feet.

## ☆ Southwest Texas

### *Gas Shows Are Reported In Duval County Wildcat*

Gas show reported in Duval County wildcat; Webb County activities boosted.

**Duval County:** Don Marsh et al's Dolores Garcia 1, wildcat 4 miles south of Concepcion and about 1½ miles east of the Sejita field, is drilling deeper after a drill-stem test at 260-71½ feet showed 200 pounds working pressure, no oil or water, in 14 minutes.

Sawnie Robertson of Dallas has located E. R. Hagist 1 as a 3000-foot


# Republic National Bank *of* Dallas

*Statement of Condition December 31, 1945*

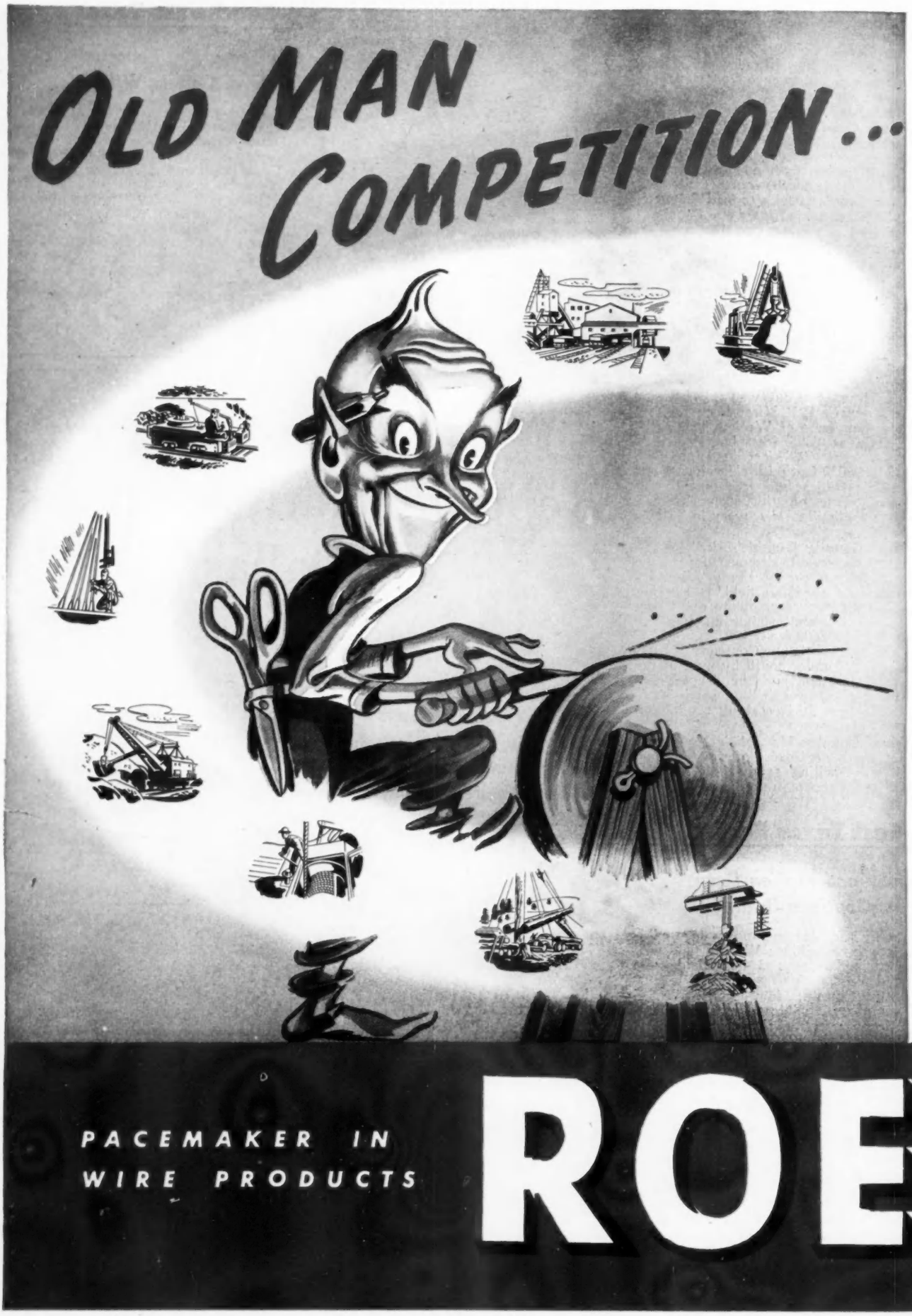
RESOURCES

| | | |
|---|---|---|
| Loans and Discounts | | $139,621,057.77 |
| Banking House | | 1,915,000.00 |
| Furniture and Fixtures | | 237,416.81 |
| Real Estate for Bank Expansion | | 397,632.85 |
| Stock in Federal Reserve Bank | | 600,000.00 |
| U. S. Government Securities | | 91,798,510.83 |
| Other Bonds and Securities | | 250,734.72 |
| Cash and Due from Banks | | 92,851,565.02 |
| Totals | | $327,671,918.00 |

LIABILITIES

| | | |
|---|---|---|
| Capital | $ 10,000,000.00 | |
| Surplus | 10,000,000.00 | $ 20,000,000.00 |
| Undivided Profits | | 1,348,304.63 |
| Reserve for Taxes, Etc. | | 1,151,892.17 |
| DEPOSITS: | | |
| Individual | $136,827,140.30 | |
| Banks | 99,739,319.12 | |
| U. S. Government | 68,605,261.78 | 305,171,721.20 |
| Totals | | $327,671,918.00 |

MEMBER FEDERAL DEPOSIT INSURANCE CORPORATION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wildcat test 20 miles north of Freer in the BS&F Survey 124.

Another wildcat for Duval County is Southern Minerals Corporation's Juan Benavides 1, El Mesquito Grant, about 2500 feet east of the N. L. Fransler 1 dry hole.

**Webb County:** Sun Oil Company's Isaac Hirsch et al 2, wildcat 26 miles northeast of Laredo, Survey 2030 and 1416 feet northeast of the Hirsch 1 dry hole, is coring below 4150 feet after taking sidewall cores at 4030 feet. Operator intends to drill to 5200 feet and set protection casing.

Blanco and Buchanan have located Marrs McLean 1 in the recently opened North Albercas area.

George K. Taggart of Fort Worth has located Lod Maglia 1 as a 2600-foot wildcat 12 miles north of Bruni in Sect. 723.

**Starr County:** Continental Oil Company's T. B. Slick Estate 1-G, Rincon field, is drilling below 4300 feet in sandy shale.

## ☆ South Central Texas

### *Completion Attempted on Humble's Lee County Test*

Humble attempting completion on Lee County wildcat; Dimmit County well has gas show; Jourdanton gas field to get second test.

**Lee County:** Humble Oil & Refining Company's George Vick 1, wildcat in the Bethel Smith survey, Tanglewood area, was testing through perforations at 6060-75 feet, flowing salt water with some oil through a 3/16-inch choke to indicate the possibility of a new producing area. Tubing pressure is 1700 pounds. The test was drilled to 6435 feet with 9⅝-inch casing set at 6101 feet. A drill-stem test at 6063-73 feet made a good recovery of oil and gas, while another test at 6077-86 feet failed when the seat slipped. A test as 6050-70 feet recovered 70 feet of oily mud and 750 feet of clean oil with 50 feet of mud. Operator continues to test.

Seaboard Oil Corporation of Delaware's Paul Hendrick 1, wildcat 8 miles north of Paige, was reported abandoned at 9630 feet.

**Dimmit County:** Howard & Wheeler's Sarah W. Henrichson 1, wildcat 2 miles southeast of Valley Wells, is drilling below 4025 feet in sandy shale showing some gas.

**Atascosa County:** Humble is moving in material for Moursund 1, second test for the Jourdanton area recently opened by the company's Henry Schorsch 1 which was completed as a gas well in the Edwards lime at 7263-95 feet.

**LaSalle County:** Humble's St. Louis Union Trust Company 1, about 22 miles east of Encinal, is drilling below 3000 feet in shale on a 7700-foot contract.

### *Kansas Scouts Elect*

Henry P. Evans of Skelly Oil Company was elected president of the Kansas Oil Scouts Association, succeeding K. T. Woodman of Lion Oil Company. Other officers elected include Darwin O. Spore, first vice president; Lynn C. Williamson, second vice president; Dewitt L. Chapman, secretary-treasurer.


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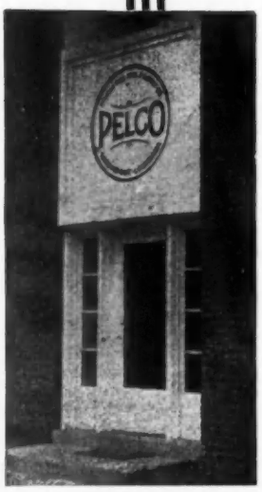


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## ☆ Lower Texas Coast

### *Production Attempt Slated For Bee County Wildcat*

Production attempt slated on Bee County wildcat; Bonnie View gas well recompleted as oiler; Jim Wells County wildcat sidetracks.

**Bee County:** Mills Bennett's Martha Berger et al 1, J. M. Uranga Grant, prospective wildcat producer 2 miles southwest of Tuleta, is nearing 8500 feet where liner will be set for completion attempt. This well has indicated gas and condensate production in both the Slick and Luling sands.

**Refugio County:** Barnsdall Oil Company's Emil Niemann 1, E. Lopez Survey, Bonnie View field, originally completed as a gas well, has been recompleted as an oil producer. First completed in gas sand at 5236-46 feet, the well was reworked and recompleted in sand topped at 4553 feet. Perforated at 4553-58 feet, the well flowed 106 barrels of 24.3-gravity oil daily through a ⅛-inch choke with tubing pressure 465 pounds. Total depth is 6505 feet with 5½-inch casing set at 5300 feet.

**Jim Wells County:** Shell Oil Company's Van Hoogenhuyze 1, wildcat 1½ miles southeast of the Wilson field, bottoms at 9070 feet and is attempting to sidetrack at 8800 feet. Operator is attempting to complete the well in gas and condensate sand at 9027-40 feet.

**Calhoun County:** Quintana Petroleum Corporation's Shofner Estate 2, 1374 feet northwest of the discovery well in the Sheriff field, has been completed in sand topped at 5718 feet. The well flowed 185 barrels of 33.4-gravity oil daily through a 3/16-inch choke with tubing pressure 440 pounds and casing pressure 830 pounds.

Fred Browning's T. P. Traylor 1, wildcat 10 miles north of Tivoli, is coring below 5800 feet in sandy shale.

**Goliad County:** Sun Oil Company has made location for an 11,500-foot wildcat 3 miles southwest of the Goliad townsite. The test is the M. L. Patton 1 in the de Leon Grant about 4000 feet northwest of the San Antonio River.

In the Weesatche field, Sun's C. B. Arnecke 1 is coring below 8400 feet in shale after running electric log at 8394 feet.

**Jackson County:** Monday Oil Company's Harry Sunter 1, wildcat 3 miles southeast of Edna, has been abandoned at 6650 feet.

## ☆ Upper Texas Coast

### *Sugar Valley Field Strike Flows Gas and Condensate*

Sugar Valley field has second producer; Newton County wildcat flowing from deep sand; confirmation wells completed in Newton and Colorado County pools.

**Matagorda County:** The Superior Oil Company and John H. Blaffer's W. J. Culbertson 1, second well for the Sugar Valley field, is flowing gas and some condensate through a 12/64-inch choke from perforations at 8274-76 feet. Total depth is 10,662 feet with 7-inch pipe set

at 8516 feet. A previous test at 7658-70 feet showed 850 pounds pressure and another test at 8073-80 feet recovered salt water. This well is about a mile northeast of the joint operators' Peterson 1 discovery well which is shut in.

In the Midfields area, Sun Oil Company's Strnadel 2, northwest offset to the discovery well, is attempting completion in gas sand topped at 9065 feet. Total depth is 9477 feet with 7-inch pipe set on bottom.

**Newton County:** Humble Oil & Refining Company's W. W. Moore Jr. 1, wildcat in the Bon Wier area, is flowing by small heads showing gas and wash water through perforations at 12,313-326 feet.

The second oiler has been completed in the Sabine Tram field at Humble's E. C. Hankamer et al 2, about ½ mile southeast of the Hankamer 1 discovery well. The well flowed 117 barrels of oil daily through a ⅛-inch choke from perforations at 8001-04 feet. Gas-oil ratio was 1230/1.

**Hardin County:** Houston Oil Company of Texas and American Republics Corporation's Arriola Fee 18, deep test on the south flank of the Arriola dome, is being delayed with a fishing job for packer. The well is being reworked after coming in for a small amount of 45-gravity fluid through an 8/64-inch choke with 2100 pounds tubing pressure from 7485-93 feet.

**Harris County:** Humble has located a second well in the North Delhi gas area about 1½ miles southwest of Josey-Bruton's Rorick 1 discovery well. It is the North Delhi Gas 1, Unit 2. Humble's North Delhi Gas 1, Unit 1, ½ mile southeast of the discovery well, is drilling below 6600 feet in sandy shale.

**Liberty County:** The Ohio Oil Company's Kirby Lumber Company 1, wildcat 6 miles east of Cleveland, James McCoy League, is drilling below 9260 feet in sandy shale. A drill-stem test at 9107-9117 feet developed 850 pounds pressure and recovered some distillate cut mud.

**Colorado County:** Skelly Oil Company and Warren Petroleum Corporation's Clara Berthold 1, northwest of the operators' Hamel 1 discovery well in the Hamel field, has been completed for 242 barrels of 38.6-gravity oil daily through a 3/16-inch choke with tubing pressure 1485 pounds. Perforations were made at 9064-72 feet with total depth 9562 feet. This is the second completion for the field.

Operators' Annie L. Boeker 1, southwest of the discovery well, is drilling below 6000 feet in shale and material is being moved in for George J. Miller 1.

## ☆ South Louisiana

### *Final Completion Made on Jefferson Parish Gas Strike*

Deep gas field opened in Jefferson Parish; new deep sand opened in North Cankton field; deep pay indicated in West Tepetate field; Union retesting Hahnville discovery well; Gulf to test Miocene sand at East Hackberry.

**Jefferson Parish:** The Texas Company has made final completion on its deep wildcat at East Barataria Bay to open a new gas producing area. State-Barataria 1 flowed an estimated 95 barrels of 55.8-gravity condensate daily along with 1,080,000 cubic feet of gas through a 10/64-inch choke with 2750 pounds tubing pressure. The well was drilled to 14,490 feet with 5½-inch casing set at 12,164 feet. Perforations were made at 11,397-407 feet for final completion.

**Lafayette Parish:** Shell Oil Company has completed Breaux-Kilchrist Unit 1, 65-8s-4e, to open a new deep sand in the recently opened east extension area of the North Cankton field. The well flowed 55 barrels of 54.4-gravity condensate daily through a 7/64-inch choke from perforations at 10,916-966 feet. Tubing pressure was 1850 pounds. Shell's F. A. Broussard 1 was completed in perforations at 10,642-656 feet to open the east extension area of the field.

Shell has located F. A. Broussard 2 in 65-8s-4e.

**Jefferson Davis Parish:** Barnsdall Oil Company's M. M. Stafford Unit 1, 36-7s-3w, is cleaning into pits to indicate a new deep sand for the West Tepetate field. Drilled to 10,005 feet, operator set casing at 9314 feet and 5-inch liner to bottom. Perforations were made at 9894-9902 feet and the well is flowing gas and condensate without a gauge. This is the deepest pay in the field.

**St. Charles Parish:** Union Oil Company of California is reperforating for a new production try at Milliken & Farwell 1, prospective discovery in the Hahnville sector. On initial test through perforations at 8776-85 feet, the well

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flowed 166 barrels of 33-gravity oil daily through a ⅛-inch choke on a drill-stem test with 525 pounds working pressure. Reports indicate the well will be retested at about the same level.

**Cameron Parish:** Gulf Refining Company's M. P. Erwin 29-A, deep Miocene sand test in the East Hackberry field, 12-12s-10w, bottoms at 10,500 feet and 5½-inch production string has been set at 10,058 feet.

Magnolia & Abercrombie's Isaac Doiron 3, Oligocene sand test at East Hackberry, has been completed for 270 barrels of oil daily through a 13/64-inch choke from perforations at 7450-65 feet. Tubing pressure was 500 pounds.

**Iberville Parish:** A. J. Bankhead of Baton Rouge, has located Natalbany Lumber Company 1 as a 9500-foot wildcat in the St. Gabriel area, 19-9s-2e.

## ☆ North Louisiana

### *Ashland Discovery Testing; Lamar Field Has Gas Well*

Ashland discovery testing; Lamar field second producer makes first gas well.

**Natchitoches Parish:** M. T. Halbouty tested the Ashland field discovery, C. L. Detro 1, 1-13n-8w, flowing 91 barrels of 28-gravity oil per 22 hours through 10/64-inch choke on latest gauge. No formation water has been showing since the well was perforated with 36 shots from 3288-94 feet. Total depth is 3301 feet with 5½-inch casing cemented on bottom. R. J. Carraway will get under way at Howell 1, C SW SW SW 31-14n-7w, diagonally northeast from the discovery, and will drill to the Woodbine.

**Franklin Parish:** Gus K. Primos and C. W. Sharp are rigging up pump to make production test at their discovery, Butler 1, C SW NW 20-16n-8e, 3 miles south of the Big Creek field. The well is reported swabbing and flowing by heads 40 barrels of oil in 8 hours from perforations at 3525-40 feet.

Atlas Oil & Refining Company-C. W. Sharp tested J. H. Baker 1, C SE SE 27-16n-9e, as the first gas well and second producer in the Lamar field. The well, reperforated from 4882-85 feet in the Tuscaloosa, is flowing in excess of 10 million cubic feet of gas per day. The well is bottomed at 5864 feet in the Glen Rose. It is an east offset to the operators' Baker 2, discovery well of the field, flowing 145.8 barrels of oil daily on 3/16-inch choke from the Tuscaloosa.

**Caddo Parish:** Union Producing Company's Noel Estate 1-A, 11-19n-16w, wildcat in the Longwood area, completed fishing job and is drilling below 8534 feet. The test is one of the deepest drilled in this area.

**Bossier Parish:** Barnsdall Oil Company-Sohio Petroleum Company's wildcat, Carter-Burton 1, C NW NW 26-23n-13w, which had shows in the Pettit and Travis Peak, is drilling below 7534 feet, still in the Travis Peak.

**Richland Parish:** Roy T. Sellars has applied for permit for D. B. McKay 1, C SW SW SE 11-16n-7e, Paluxy sand test ½ mile south and 2 miles west of Big Creek production.

### *Louisiana Oil Taxes*

Louisiana collected severance taxes totaling $4,060,531 in the final quarter of 1945, of which that on oil amounted to $3,198,432 on 32,973,345 barrels; that on gas to $376,205 on 125,318,456 cubic feet, the state revenue department reported. The oil tax rate varies from 6 to 11 cents per barrel, depending on gravity. The gas tax is 0.3 cents per 1000.

## ☆ Arkansas

### *Prospective Patton Field Extension to Receive Test*

Operators to test Patton extension prospect; Wesson field has fourth oil producer; Union County wildcat failure to drill deeper.

**Lafayette County:** Mid-Continent Petroleum Corporation is preparing to test O. S. Moore 1, C SE NW 33-17s-24w, which may be an extension to the Patton field. Rains and high water have delayed completion of the well, bottomed at 9321 feet. Operators logged 48 feet of saturated section in the Smackover lime, the upper 28 feet carrying gas-distillate and the bottom 20 showing gas and oil. Cores from 9275 feet to total depth had almost 100 percent recovery. Smackover was topped at 9252 feet and porosity at 9273 feet. The test is ¼ mile north and ¾ mile east of Barnsdall Oil Company-Sohio Petroleum Company's Moore Heirs 1, NW SE 32-17s-24w, first oil production in the Patton field.

**Union County:** The Atlantic Refining Company's Goode 1, wildcat in 6-17s-13w, is waiting on pumping unit before


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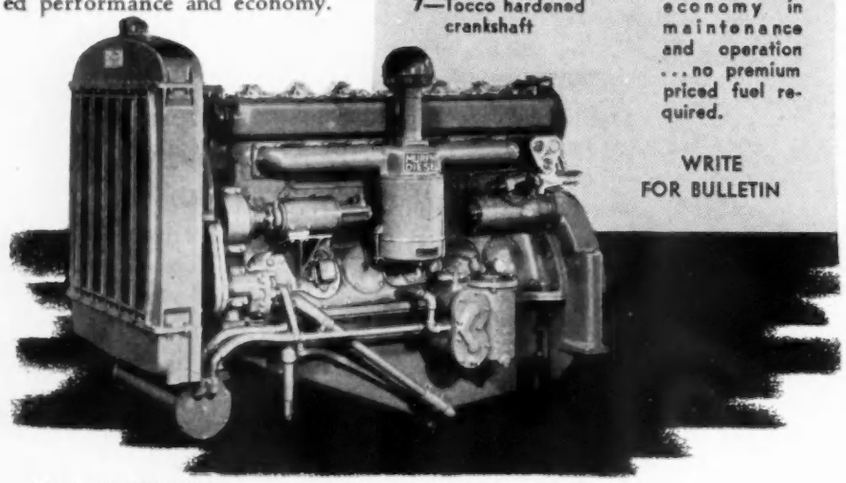

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testing further. The test was plugged back from 5657 feet and drilled out to 5645 feet. Operators swabbed 25 barrels of oil and 100 barrels of salt water per day.

R. C. Wallingsford's P. Wineman 1, C NW SW SE 13-18s-13w, wildcat 1½ miles southeast of Urbana field, was started in September and abandoned at 3050 feet without shows. Rotary tools are being rigged to drill deeper.

**Ouachita County:** McAlester Fuel Company's C. M. Wesson 1-B, C SE SE NW 24-15s-19w, flowing 146 barrels of oil per day through ⅛-inch choke on tubing, is the fourth well in the Wesson field. Production is from the Glen Rose sand through 22 perforations from 2636-48 feet. Total depth is 3090 feet. The new producer is a northwest diagonal offset to the discovery.

## ☆ Mississippi

### *Warren County Tests Lack Encouragement at 8800 Feet*

Warren County tests find no encouragement at 8800-foot level; successful completion noted for East Heidelberg; Tinsley test abandoned.

**Warren County:** William Helis' Anderson Tully Lumber Company 1, NEc 40-14n-3e, flank test of salt dome, is making core tests after running electric log to 8894 feet. Wilcox zone was topped at 3517. This is the first test of the area since C. H. Osmond's Anderson-Tully 1 was abandoned as a duster in November. Frontier Oil Refining Corporation's F. C. Martin 1, NW NW 1-16n-5e, Tuscaloosa prospect, is bottomed at 7500 feet after losing fish in drill-stem test. Slight shows of gas were reported in 700-foot zone, but none tested out.

**Franklin County:** The California Company's Homochitto Lumber Company 1, 27-7n-1e, which will extend Cranfield a considerable distance east if successfully completed, is drilling below 9500 feet with no shows reported in the Wilcox horizon in the 6000-foot level. Productive zones, if any, should be encountered in another 700 feet. Gulf Refining Company's Ella G. Lees 3, 32-7n-1w, headed for the lower Tuscaloosa in an effort to extend Cranfield, has run electric log and set casing to 1848 feet.

**Jasper County:** K. D. Owen & D. C. Bintliff's B. A. Rowell 1, SW NW NE 13-1n-12e, East Heidelberg field, has been successfully completed with an initial flow of 48 barrels of oil per day. Five sections of the Eutaw were perforated between 4808 feet and 5057 feet to establish production. This is the first completion for these operators in this field. Tide Water Associated Oil Company-Gulf's Simmons-Morrison Unit 1, NEc NW SW 30-1n-13e, is installing pump preparatory to completion after testing a good flow of oil from the Eutaw horizon at 4872-4954 feet. Skelly Oil Company's M. J. Lightsey 1, SW SW NW 18-1n-13e, East Heidelberg, is also preparing to complete after swabbing 23.1-gravity oil from tests of the Eutaw zone. L. E. Cadenhead's Porter 1, SE SW 25-1n-13e, has staked a test of the Eutaw horizon several miles north of the Heidelberg area.

**Lincoln County:** Danciger Oil & Refining Company's Central Lumber Company 1, SWc 22-8n-5e, wildcat, is drilling below 7176 feet with no shows. Wilcox horizon was extensively cored with no encouragement.

**Yazoo County:** C. F. Urschel's Slick Estate 25, SEc 35-11n-3w, working below the established productive levels in Tinsley field, was drilling at 7400 feet with no shows. The well is running well on structure but no announcements have been made regarding any yields in the Woodruff and Perry sands topped at 4782 feet and 5223 feet, respectively. Sohio Petroleum Company's G. & M. Brumfield B-11, NEc SE SE 2-10n-3w, in Tinsley, has been abandoned as a duster for the first failure in the field in some time. Shows indicative of commercial production were not encountered in any of the sands passed. The well was abandoned in the Tuscaloosa zone at 5862 feet.

**Marion County:** Humble Oil & Refining Company's E. A. Ball 2, SW SE 20-2n-14e, Hub field, is running core tests below 8230 feet with no shows. Humble's W. E. Walker 1, SW SE 25-2n-18w, Tuscaloosa test, is waiting on cement after running surface casing.

**Copiah County:** The Carter Oil Company's Reynolds C-133, NWc 12-10n-5e, headed for the lower Tuscaloosa, is drilling below 8475 feet with no shows after topping chalk at 7820 feet. No shows were indicated in cores from the Wilcox zone below 3542 feet.

**Perry County:** Stanolind Oil & Gas Company's Masonite Corp. 1, SW NE 7-3n-9w, is running core tests below 8665 feet with no shows. Cores taken in the 8600-foot zone of the Tuscaloosa recovered sand with good porosity and

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some salt water. Cores taken from the Eutaw showed gray and sandy shales with no potential prospects.

### Florida

Sun Oil Company's Crapps 1, SW NE 25-6s-12e, Lafayette County wildcat, is coring below 3445 feet with no shows. On test in the 3300-foot zone the well recovered only mud and salt water.

**Highlands County:** Humble Oil & Refining Company's G. C. Carlton Estate 1, C SW NE 34-38s-29e, deep test, is approaching the 13,000-foot level with no shows reported in the lower horizons.

**Monroe County:** O. D. Robinson's State Well 1, NEc NW 29-59s-40e, wildcat, is drilling below 8257 feet with no shows.

**Collier County:** Humble's Gulf Coast Realties 6, C SW NE 19-48s-30e, is drilling below 8813 feet without shows.

**Bay County:** The Pure Oil Company is drilling below 4014 feet in International Paper Company 4, 8-3s-12w.

### Alabama

The Carter Oil Company's Sam Alman Unit 1, SW SE NE 5-10n-3w, East Gilbertown field, Choctaw County, has been completed after reducing salt water intake. On initial production test the well pumped at the rate of 41 barrels per day. Gravity of the oil was 17.

**Clarke County:** C. V. Carey and Nu-Enamel Corporation's A. W. Hill, NWc 27-9n-1e, wildcat, was abandoned at 5440 feet with no shows.

**Madison County:** Newman Oil Company's Lam 1, C SW NW 10-4s-1e, wildcat, is drilling below 685 feet.

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## ☆ Rocky Mountain Area

### *Rangely Has Costly Blaze; Conoco Outpost Near Weber*

Rangely field, Colo., has costly fire; Conoco outpost probes northwest end of the field; Wyoming's Cambrian test in Oregon basin fails to yield oil in commercial quantities; Mosby Dome section of Cat Creek field, Montana, has first 1000-barrel producer.

### Colorado

The Texas Company - Union Pacific Unit 7, Rangely field, Rio Blanco County, hit a gas pocket and exploded, injuring 3 workers and setting a fire that caused $150,000 damage with the fire still burning. At the time of the fire the well was making hole below 6000 feet.

Continental Oil Company's outpost in the northwest end of the Rangely structure, NW SW 15-2n-103w, is drilling in the Red Beds near the Weber sand and about 1000 feet lower than some of the producing wells in the field. The well is 1½ miles from production.

### Montana

Cat Creek's Mosby Dome wells may be the forerunners of scores of tests of the productive sand generally known as the Ellis but which many geologists insist is the Morrison. Since New Year's Day the Livingston & Spencer made more than 1000 barrels a day before available storage was filled. The oil is 52.3-gravity. This well was deepened from 968 feet where it had been an average second sand producer.

Val M. Kirk of Frannie, Wyo., whose Oregon Basin deep test has held the center of attention for several weeks, has joined the Cat Creek play by beginning operations on the Butler lease for an east offset to the 1000-barrel well. Kirk's crew now is moving in tools for his Butler farm test at NW NW SE 21-15n-30e.

A. B. Cobb completed his Erickson 2 in a long-inactive section of the Pondera field as a producer, making 204 barrels of oil per day, after acidizing.

### Wyoming

Exhaustive tests of rocks of Cambrian age which yielded oil shows at the Kirk-Pacific Western Connaghan 5 deep test in Oregon Basin, Park County, have failed to find the Deadwood or Kirk sands productive in commercial quantities. The well has been plugged back for testing the Madison, from which much of the Oregon Basin production comes. Although the Cambrian test did not result in finding commercial quantities of oil at Oregon Basin, the experience has influenced many drilling programs and has stimulated renewed interest in deep tests in proven structures in many sections of Wyoming, Montana and Colorado.

### *Kansas Group to Meet*

The Kansas State Corporation Commission will meet with operators January 24, at Wichita, to determine the February market demands for oil and gas and to consider a reduction of the present 25-barrel minimum daily allowable now in force for Kansas wells.

## ☆ Illinois Basin

### *Two Strikes in Prospect for Mattoon Pool of Illinois*

The Mattoon pool, Coles County, which for the third consecutive month is leading all Illinois drilling activity, has 2 new discoveries in prospect.

Possible extensions are National Consumers' Arthur 1, SE NE NW 2-12n-7e, wildcat approximately 1 mile north of production in the pool, which is now 8 miles long and 2 miles wide, and B. A. Baker's Miller 1, SE NE NW 6-11n-8e, an eastern extension for the pool. Arthur 1 is waiting on cement to drill plug for test of Rosiclare sand, while Baker's Miller 1 is waiting on cement to drill plug for test of Cypress sand.

George and Wrather are drilling plug at Tivnen 1, NWc SW 26-13n-7e, north and east extension of the pool in the Rosiclare sand. Ben Nation is testing Donnell 1, SE SE SW 34-13n-7e, another extension, after a shot in the Rosiclare and the same operator is waiting on standard tools for Phipps' 1, southern extension for the field.

**Clay County:** Deep Rock Oil Corporation's Given 1, NW NW SE 4-2n-6e, approximately 3 miles southwest of Flora, and 2 miles from production, is opening a new area in the McClosky lime. During a 1-hour drill-stem test at 2976-82 feet, the well yielded 1500 feet of oil and 100 feet of oil-cut mud. Casing was set for production test.

N. V. Duncan's Leonard 1, SW SW NE 2-4n-7e, 4 miles north of Sailor Springs pool and 5 miles southeast of Bible Grove production, pumped 165 barrels per day during initial tests of Cypress sand at 2554-75 feet after a 60-quart shot. Total depth is 3007 feet.

In the Clay City area, Phillips Petroleum Company's Taylor 1, W½ NW NE 24-3n-7e, swabbed 674 barrels of oil in 24 hours from McClosky lime at 2994-3002 and 3016-21 feet after acid treatment.

## ☆ Michigan

### *Clare County Test Has Gas, Distillate from Monroe Pay*

Pure's Clare County test has gas, distillate from Detroit River section of Monroe; Montcalm County well to be acidized after swabbing 3 to 8 barrels from Monroe; Elba field test, Gratiot County, flows from Upper Traverse.

**Clare County:** The Pure Oil Company's Freer 1, N½ NW SW 18-17n-6w, Garfield Township, gauged 8,100,000 cubic feet gas and 81 barrels distillate from a pay in the Detroit River section of the Monroe at 5013-37 feet. The well was killed and shut down for orders with the probability it will be deepened to about 5200 to test true Sylvania (sand) section. The wildcat is 7 miles southeast of the Evart field and 6 miles northeast of the Fork field. In the latter field Sun Oil Company drilled a 5100-foot test in 1945 that produced gas and distillate.

**Montcalm County:** Sohio, Union and Barber's Douglas 1, NW SW SE 3-12n-8w, Cota Township wildcat, swabbed from 3 to 8 barrels of oil from a Monroe dolomite pay at 3544-54 feet, after resetting casing through a Dundee water section and deepening from 3545 feet. Operators plan to acidize.

**Gratiot County:** A. E. Williams' Krahl 1, SE NE SE 15-9n-1w, Elba field, averaged between 55 and 80 barrels oil flowing by heads the first 10 days on a test at 2437 feet. Production is from Upper Traverse. Different wells have produced from the same section previously but failed to maintain production.

**Isabella County:** Chartiers Oil Company's Diehl 1, N½ SW NW 29-15n-6w, outpost 1 mile northwest of the old Sherman oil and gas field, gauged 2,000,-500 feet of gas in the Michigan Stray sand at 1448-55 feet. Gas will be cased off to permit deepening to 3700 feet to test Dundee.

### *Mississippi and Alabama Oil and Gas Map Available*

A new four-color oil and gas map of Mississippi and West Alabama has been announced by the Mississippi Oil and Gas Engineers of Jackson, Miss. The map shows the counties, county seats, township and ranges, oil, gas and condensate fields with their field names, reservoir names, date of discovery, discovery well, geologic age of producing formation, gravity of production, top of pay sand and elevation above sea level; also a list of salt domes showing the name, county, location, discovery date, whether or not salt was encountered in the well drilled and whether or not a Tuscaloosa flank test was drilled, and the result of all of the flank tests.


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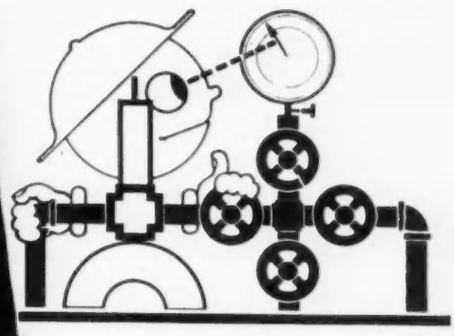

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## ☆ California

### *San Joaquin Valley Leads In Wildcatting Upswing*

A noticeable uptrend in wildcatting in California has taken place in recent weeks, the greater part of the activity being in the San Joaquin Valley. Prevailing opinion among West Coast oil men is that exploration for the new oil fields will continue in 1946 on a basis easily comparable to 1945, a peak year for wildcatting.

Locations were made for 10 prospect holes in 7 counties. The greater part of interest was, as usual, in Kern County, where 4 projects were preparing to get under way. One of the prospectors was William C. McDuffie, former Shell Oil Company and Richfield Petroleum Corporation executive and now an independent operator, who will drill a wildcat in the Goshen area of Tulare County.

On the debit side of the wildcat ledger during the week were 9 dry holes, 5 in Kern County alone, including a 10,000-footer drilled in the Rosedale area by General Petroleum Corporation without showings. Two dusters were debited to Los Angeles County and 1 each to Fresno and Solano counties.

**Los Angeles County:** The Superior Oil Company's test for Schist production in the Torrance field is coring below 3200 feet in shale. Nearby, Continental Exploration Company, also shooting for the Schist, gave a hint that it may have found that formation unproductive when it plugged back after drilling into the Schist at 5754 feet. Plug is at 5607 feet. About 300 holes were shot between 5547 and 5607 feet. Swabbing produced water and oil.

Richfield has stopped the drill in its Bandini wildcat, Union Pacific Unit 1 in 9-2s-12w, at 9629 feet, plugged bottom and is preparing to make a retrial of showings between 8500 and 8600 feet. C.C.M.O.'s Bandini wildcat, Bandina 1 in 21-2s-12w, has reached a critical depth and further progress will be closely watched. Total depth is 8215 feet. Crew is reaming out hole and repairing equipment. Richfield's Simons 1 in Sect. 15 drilled into the Miocene at 7522 and is now coring below 7700 feet.

Shell's deep test of the Long Beach field, Stakemille-Rose 1, is swabbing oil at a 150-barrel rate from the De Soto zone. With total depth 12,381 feet the well was plugged back to 11,520 where 1380 feet of perforated was landed. De Soto zone was discovered 6 years ago, but production on the pump was not sufficient to justify further development. Shell's other Long Beach deep test, Alamitos 48A, bottomed at 14,950 feet, is cleaning out preliminary to further testing.

**Kern County:** The Bacon Hills wildcat of Bandini Petroleum Corporation, Bacon 1 in 27-28-20, was wet on shutoff test at 10,798 feet and was suqeezed. Crew is now drilling out the retest.

Tide Water Associated Oil Company's deep test of the Kern River field, Luck 154 in 30-28-28, has obtained a water shutoff on the recement job and interval 5744-49 feet has been gun-perforated for a test.

Amerada Petroleum Corporation's attempt to extend the Ant Hill field to the east has ended in failure. Its Wagley 27-14 has been abandoned at 4518 feet in Granite.

British American Oil Producing Company and Capital Company, whose Grapevine outpost Tejon Ranch 41-5 in 5-10n-19w, extended the Grapevine-Tojon field ½ mile a month ago, are coring in oil sand in Tejon Ranch 51-5, also in Sect. 5, with completion near.

**Fresno County:** Wilshire Oil Company is rigging up to redrill 27-23E in 23-21s-15e. Present depth is 3905 feet with shutoff at 3858 feet. The well will be drilled horizontally into the zone for 50 to 60 feet by the Zublen method.

**Solano County:** Amerada probably will abandon its test for gas in the Dixon area, M. L. Preston-A1 in 24-6n-2e. Electric log and side wall sampler have turned up nothing favorable.

## ☆ Canada

### *Shell Takes Up Reservation In Central Alberta Foothills*

Shell Exploration Alberta Limited, subsidiary of Shell Oil of Canada, has taken up a Crown reservation covering 175,150 acres in the Central Alberta Foothills. The petroleum and natural gas reserve covers rights in Twps. 29 to 33 in Rges. 8 and 9w5, cut through by the Red Deer River. The block is about 50 miles northwest of Calgary, and is northwest of Roxana Oils' Keystone Valley wildcat, now drilling.

Alberta's first 1946 wildcats have been staked by Imperial Oil Ltd. Both of the sites are on the Central Alberta Plains, seeking eastward extension of the Natural Gas field discovered by Imperial last November. Imperial-Kinsella 6 will go down in lsd 10 11-47-19w4, 3 miles east and 2 miles south of the discovery, while Imperial-Kinsella 5 will go down in lsd 7 11-48-9w4, six miles north of No. 6.

The January 1 boost of 45 cents per barrel in Turner Valley crude prices (raising the average for 43-gravity crude from $1.72 to $2.17) was not reflected in a proportionate raise in price for other Alberta crudes (mostly Plains crude with a gravity range of 14 to 35). The Canadian Wartime Prices & Trade Board, which authorized the Turner Valley boost, has however advised refiners that they may negotiate increased prices for such crudes with producers, provided such boosts do not exceed the Turner Valley increase. The authorization carries the rider that refiners need not pay all or any part of the authorized increase for crudes other than Turner Valley. Because of this rider—and the fact that so far nothing has been accomplished in raising prices for Plains crude—the Alberta Petroleum Association is pressing WPTB for definite government action, pointing out "absolute necessity of considering a proportionate increase in the price paid the producer for Plains oil."

### *Agua Dulce Order*

The Texas Railroad Commission has rescinded its order permitting withdrawal of 20 million feet of gas daily from the Dabney sand reservoir in the Agua Dulce field, Nueces County. The charge was ordered because heavy withdrawals have caused the oil column to move up structure.

### CALIFORNIA WILDCATS

**Kern County—Failures:** Amerada's Waglay 27-14, 14-29s-29e, Ant Hill area, abnd Granite 4518 ft.

Rothschild Oil Co.'s K.C.L.-A 56-12, 12-30s-26e, Gosford area, abnd 7030 ft.

Gen. Pet. Corp.'s Pioneer 82-36, 36-29s-26e, Rosedale area, Vedder 10,365 ft, abnd 10,670 ft.

Gene Reid Drlg. Co.'s Hooper 1, 36-26s-27e, Mt. Poso area, Olcese 1536 ft, Vedder 2726 ft, abnd gray sd, 2762 ft.

Mitchell and Steele's S. P. 2, 33-26s-28e, Mt. Poso area, abnd gray sd, 1920 ft.

**Fresno County—Failure:** Continental's Continental-Gulf-Miller & Lux Community 1, 25-11s-13e, Chowchilla area, abnd 3985 ft.

**Solano County—Failure:** Standard of Calif.'s Nat. Gas Corp.-Bacon 1, 29-4n-1e, W. Rio Vista area, abnd 6008 ft.

**Los Angeles County—Failures:** Seaboard's Evans 1-A, 23-3n-16w, Aliso Canyon area, abnd 8209 ft.

Union Oil Co.'s Sansinena 16, 33-2s-10w, La Habra area, abnd 5984 ft.

### FLORIDA WILDCAT

**Bay County—Failure:** Pure's International Paper Co. 4, swc 8-3s-12w, abnd 4960 ft.

### ILLINOIS WILDCATS

**Coles County—Failures:** E. P. Jarvis' Akers 1-A, nw sw sw 1-11n-7e, abnd 2102 ft.

B. A. Baker's Sellew 1, ne se nw 31-12n-8e, abnd 2240 ft.

**Clinton County—Failure:** H. J. Schlafly's Hahn 1, ne nw nw 11-2n-1w, abnd 1721 ft.

**Jefferson County—Failure:** Texas Co.'s Boldt 1, ne se ne 20-2s-1e, abnd 2251 ft.

**Madison County—Failure:** O. W. Dickerson's Culp 1, (OWDD) e½ ne ne 35-6n-9w, otd 200 ft, abnd 1200 ft.

**Marion County—Failure:** Wm. L. Less et al's Mehler 1, nw sw se 4-1n-1e, abnd 1855 ft.

**Perry County—Failure:** Southwestern O&G's Crawford 1, se ne sw 29-4s-3w, abnd 1750 ft.

**Richland County—Failures:** John Washburn's Levitt 1, s½ sw ne 22-3n-9e, abnd 3118 ft.

R. E. Johnston's Treece 1, nw nw se 10-2n-14w, abnd 3188 ft.

**Wabash County—Failure:** Oliver Leighty's Schrader 1, ne sw se 31-2n-12w, abnd 1660 ft.

**Washington County—Failure:** Shell's Sharkowski 13-D, nw nw nw 23-3s-3w, abnd 2887 ft.

### INDIANA WILDCATS

**Gibson County—Oil Discoveries:** Ryan Oil Co.'s Kern 1, se sw sw 23-1s-12w, Cyp 1965-80 ft, flow 144 bbls, td 1980 ft.

Ryan Oil Co.'s Putnam 1, ne nw nw 26-1s-12w, Hds 1796-1801 ft, pump 23 bbls, td 1801 ft.

**Posey County — Oil Discovery:** Magnolia's Armbruster 2, nw se se 14-7s-14w, Walt 1949-58 ft, pump 63 bbls, td 2756 ft.

**Spencer County—Failure:** H. L. Lambert's Bullock 1, se se se 34-6s-7w, abnd 1646 ft.

**Sullivan County — Failure:** Highlands Oil Co.'s Queen 1, se se se 17-6n-9w, abnd 1364 ft.

**Vanderburg County—Failure:** Bristol Hackbush's Reis 2, se ne sw 19-5s-11w, abnd 1902 ft.

### KANSAS WILDCATS

**Barton County — Failure:** Virginia Drlg. Co.'s Lischesky 1, ne ne ne 11-19s-13w, Arb 3421 ft, abnd 3471 ft.

**Butler County—Oil Discovery:** S&L Drlg. Co.'s Bettle 1, sw cor 1-27s-6e, pump 20 bbls Lans 2750-60 ft, td 3160 ft.

**Ellis County — Failure:** Fred Manning's Dreiling 1, sw sw se 21-14s-16w, abnd 3448 ft.

**Graham County—Failure:** Royer & Farris' Holland 1, nwc 25-8s-22w, abnd 3756 ft.

**Gray County—Failure:** E. F. Wakefield et al's Brubaker 1, se nw se 18-24s-28w, abnd 4953 ft.

**Kingman County—Failure:** Cities Service's Eck 1, c se nw 1-29s-10w, Arb 4694 ft, abnd 4724 ft.

**Stafford County—Failure:** Ed Swearer et al's Witt 1, sw sw ne 1-23s-13w, abnd 3840 ft.

**Reno County—Failure:** Plains Exploration's Updegrove 1, sw sw sw 21-22s-9w, Arb 3814 ft, abnd 3844 ft.

**Rice County—Failures:** B. C. W. Hyde, Jr.'s Loesch 1, c nw ne 26-20s-10w, Arb 3397 ft, abnd 3405 ft.

Tom Palmer's Benhnke 1, se sw ne 36-18s-10w, Arb 3288 ft, abnd 3343 ft.

**Riley County — Failure:** Iseman et al's Gragenstene 1, nwc 21-8s-6e, abnd 2702 ft.

**Russell County — Failure:** Brunson Drlg. Co. et al's Dumler 1, se se ne 8-14s-13w, Arb 3357 ft, abnd 3379 ft.

**Sumner County—Failure:** Akin Oil Co. et al's Stuart 1, nw nw se 7-34s-2w, Simp 4558 ft, abnd 4566 ft.

**Woodson County—Failure:** Ira Nourse et al's Ladd 1, sw ne sw 27-26s-17e, abnd 2240 ft.

### KENTUCKY WILDCATS

**Henderson County — Oil Discovery:** Basin Drlg. Co.'s Kasey 1, 8-P-23, O'Hara 2440-48 ft, flow 370 bbls, td 2470 ft.

**Henderson County—Failures:** A. L. Cockran's Mann Est. 3, 22-R-23, abnd 2520 ft.

Basin Drlg. Co.'s Hrodes 1, 13-Q-20, abnd 2811 ft.

**McLean County — Failure:** Producers Pipe Line Co.'s Cavendar 1, 9-M-29, abnd 2142 ft.

**Union County—Failures:** Carl Sneff's Hammock 1, 17-M-20, abnd 2607 ft.

E. T. Wix et al's Morganfield Coal Co. 1, 16-O-20, abnd 2756 ft.

Sun Oil's Waller Bros. 1, 9-O-19, abnd 2731 ft.

### NORTH LOUISIANA WILDCATS

**Concordia Parish—Failure:** S. W. Richardson's Madison Oil & Dev. Co. 1, 16-6n-8e, abnd 6539 ft.

**Natchitoches Parish—Failure:** E. H. Demetrio's Prudential Life 4, 16-10n-9w, abnd 1390 ft.

### SOUTH LOUISIANA WILDCATS

**Evangeline Parish—Mamou Oil Discovery:** Magnolia's J. B. Morein 1, c nw sw 5-5s-1e, 3 mi e Pine Prairie fld, Cockfield 8949 ft, Wilcox 11,510 ft, so 11,575 ft, Wilcox pay 11,653 ft, perf 60 shots 11,519-34 ft, flow 208 bbls 46.3-gr, 8/64-in, gor 3700/1, tp 4200 lbs, td 11,653 ft.

**Jefferson Parish—E. Barataria Bay Distillate Discovery:** Texas Co.'s State-Barataria Bay 1, 8780 n 6200 e of swc T-20s-25e, pay 11,393 ft, perf 66 shots 11,397-407 ft, flow 95 bbls cond 55.8-gr, 1,080,000 gas, 10/64-in, gor 67,500/1, tp 2750 lbs, td 14,490 ft.

### MICHIGAN WILDCATS

**Allegan County—Failure:** J. W. Lang's Calkins 1, sw sw ne 34-3n-12w, abnd 1809 ft.

**Bay County—Failure:** Ervin Major's Taylor 1, sw sw ne 32-18n-3e, Dundee lime 3040 ft, abnd 3239 ft.

**Isabella County — Failure:** Wicklund Dev. Co.'s Smith 1, nw nw sw 29-13n-4w, Dundee lime 3612 ft, abnd 3636 ft.

**Oceana County—Failure:** Neil Wagenaar's Kyncl 1, ne ne se 35-16n-18w, abnd 3011 ft.

### MICHIGAN OUTPOSTS

**Allegan County—Monterey Extension:** Tamblyn Dev. Co.'s Brown 1, ne se se 4-3n-13w, 1 mi ne prod. Traverse 1670 ft, flow and pump 45 bbls, after acid, td 1674 ft.

**Clare County—Surrey Gas Failure:** Mich. Consol. Gas Co.'s Gallini 1, w½ w½ w½ 30-17n-4w, Stray sand, abnd 1477 ft.

### MISSISSIPPI WILDCAT

**Greene County—Failure:** Humble's Oscar E. Waer 1, nec se 33-5n-8w, abnd 8300 ft.

### WEST TEXAS WILDCATS

**Coke County—Failure:** Warren Pet. Corp.'s Kirk 1, 660 out nwc s½ John Johnson sur 309, elev 2023 ft, Ellenburger 6338 ft, abnd 6552 ft.

**Crane County—Failure:** Humble's G. H. Cowden 1, c ne se sect 35, blk X, CCSD&RGNG sur, elev 2530 ft, anhy 600 ft, Yates 1630 ft, San Andres 2620 ft, Devonian 6085 ft, Silurian 6330 ft, Simpson (1st) 7450 ft, Ellenburger (1st) 7720 ft, Simpson (2nd) 8350 ft, Ellenburger (2nd) 8710 ft, abnd 9460 ft.

**Hale County—Failure:** Globe O&R Co.'s Downs 1, (OWDD) c se sw T. T. Ry. 5, blk J-K, otd 5807 ft, elev 3455 ft, San Andres 2870 ft, abnd 6437 ft.

**Pecos County — Failure:** Byrd & Frost's Jackson-Sun 1, ne ne sw H&GN Ry. 46, blk 11, elev 2587 ft, abnd 1364 ft.

### WEST CENTRAL TEXAS WILDCAT

**Coleman County — Failure:** Fulwiler & Hughes Dr. Co.'s Cope 1, 660 out swc n½ sect 1, E. L. & RR Co. sur, Morris sd 3100 ft, Capps li 3137 ft, Bend 3710 ft, abnd 3765 ft.

### SOUTH CENTRAL TEXAS WILDCATS

**Bexar County—Failure:** Walter H. Bode-Pegg Bros.' H. Lowe 1, 330 fr n&wl 31.2-ac lse, H. Virm sur 195, abnd 1000 ft.

**Guadalupe County—Failure:** Cecil Hagen-D. D. Feldman's Paul Alves Est. 1, 990 fr nl 330 fr el 115-ac lse, John Ussery sur, abnd in Edwards 1916 ft.

**Medina County—Failure:** Ralph E. Fair's G. C. McAnnelly 1, 467 fr nel 2209 fr sl 1916-ac tr, Ed. C. Durst sur 13, Glenrose 3690 ft, abnd 5512 ft.

**Zavala County — Failure:** Humble's Marrs McLean 1, 330 fr wl 330 fr sl 240-ac lse 76, Mariso Aguirre sur, abnd 5000 ft.

### SOUTHWEST TEXAS WILDCAT

**Zapata County—Failure:** A. M. Lacey's M. Garza Est. 1, 330 fr se&nel blk 34, C. A. Douglas sbdn, 1400-ac lse, Las Comitas & Villa Grs, 467 e of Star Dev. Co.'s Well 1, abnd 2007 ft.

### LOWER TEXAS COAST WILDCATS

**Bee County—Failure:** Newman Bros.-Rowan & Hope's Fritz Meyers 2, 330 fr nel 330 fr sl 86-ac lse, M. G. Frazier sur, abnd 4261 ft.

**Jackson County—Failure:** Donald W. Moore-T. J. Ahern's J. A. Leissner 1, 2333 fr el 467 fr sl 135-ac lse, Valentine Garcia sur, abnd 7505 ft.

**Kleberg County—Failure:** Taylor Ref. Co.'s R. S. Muil 1, 467 fr s&wl lot 6, blk 10, King addn 2, abnd 7515 ft.

**San Patricio County—Failure:** J. K. Dorrance's Doris W. Bonorden 1, 330 nw of sel 330 ne of swl sect 3, 253.9-ac lse, Coleman-Fulton Pstr. Co. sectionized ld, abnd 6658 ft.

**Willacy County—Failure:** Humble's W. S. Murphy 1, 660 fr n&wl lot 12, blk 75, 130.8-ac lse, San Juan de Carricitos Gr, Gulf Coast Irrig. Co. sbdn, abnd 11,207 ft.

### UPPER TEXAS COAST WILDCATS

**Ft. Bend County—Failure:** H. E. Williams-W. S. Thompson's Mrs. R. L. Young 1, Ed. Robertson sur, 808.6-ac lse, Frio 6224 ft, abnd 6525 ft.

**Harris County—Failure:** Texas Co.'s Bender Est. 1, 2000-ac lse, T. W. Marshall sur, abnd 13,561 ft.

### EAST TEXAS WILDCATS

**Falls County — Failure:** H. C. Cockburn-Zephyr Oil Co.'s Dr. N. D. Buie 1, 2700 fr swl 1890 fr sel Michael Sessam sur, elev 399 ft, Pecan chalk 745 ft, Austin 1855-2075 ft, Edwards 2660 ft, Anhydrite 3840 ft, Rodessa porosity 3900-4000 ft, Pettit 4176 ft, Travis Peak 4298 ft, Cotton Valley 5870 ft, Buckner 6280 ft, Smackover 6460 ft, abnd 7063 ft.

**Fannin County—Failure:** R. J. Abbey-Overton Ref. Co.'s Barker 1, 330 nsl 157 ewl Thomas Harrison sur, elev 556 ft, Comanche li 1005 ft, Georgetown 1144 ft, Paluxy 1410-30 ft, Glen Rose 1600 ft, Paleozoics 2885 ft, abnd 2920 ft.

### EAST TEXAS OUTPOST

**Freestone County—Fairfield Gas Fld. Extension:** Barney Carter et al (was R. L. Whee-

CURTIN CENTRIFUGES

Give You Quick, Accurate Results
With Less Effort . . . at Less Cost

Simple in design, ruggedly built for heavy duty service. Gear ratio and throw of crank produce required speed with no strain. Heads and cranks of 100 CC and 15 CC machines are interchangeable. Meets A.S.T.M. *Standard Method D-96 and A.P.I. Code No. 25 requirements.* Ask for full details.

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HOUSTON U.S.A. TEXAS

# The OIL WEEKLY'S TRADING POST

## USED EQUIPMENT FORUM

**CLASSIFIED ADS . . . EQUIPMENT . . . SERVICES . . . PERSONNEL**

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## STORAGE TANKS — IMMEDIATE DELIVERY

**New 1,000 bbl. bolted tanks crated—size 8′ 1½″ x 29′ diameter—10 gauge throughout. Complete with all gaskets, fittings and tools for erection. Call, wire or write for delivered prices.**

**2—55,000 bbl. riveted steel storage tanks.**

**1—80,000 bbl. welded steel storage tank, good condition, located near Kilgore, Texas.**

## REFINERY EQUIPMENT, Inc.

**P. O. Box 1709** **Tulsa, Oklahoma** **L. D. 410**

■ To settle an estate will sell Double drum drilling unit for servicing wells to ten thousand feet. First class condition. Priced reasonable. Located in West Texas. V. A. Cain, Box 164, Penwell, Texas.

■ FOR SALE: Medium size rotary drilling rig, Cardwell model K drawworks, Gardner-Denver 7¼″ x 10″ pump, GAK Waukesha motor, butane equipment, 4½″ drill pipe, 96′ mast. Rig very completely equipped now drilling in Hugoton gas field. Contact Kiowa Drilling Company, Inc., 717 Union National Bank Bldg., Wichita 2, Kansas.

■ Rotary suitable for shallow drilling Witch-Tex Drawworks, 5⅞ x 12 Oil Well Pump Mast Poles. Recently finished 1900 ft. hole. Rig is complete, $8,500. Can furnish some shallow drilling blocks, geology furnished. C. G. Hart, 2400 Grant St., Wichita Falls, Texas.

■ DRILLING EQUIPMENT: National No. 2 machine, Star No. 28. Standard outfit with 80′ steel derrick, cable tools for shallow and deep drilling. Fishing tools, boilers, engines. S. W. Pressey, Pueblo, Colorado.

■ FOR SALE: One used Clark 12½″ x 14″ Super Two Cycle 150 H.P. 2 Cylinder 300 RPM Angle Gas Compressor Engine Type RA-2S direct connected to 2—7″ x 14″ U.T.L. Compressor Cylinders and two extra 12″ x 14″ Compressor Cylinders. Box 376, Bradford, Pa.

■ FOR SALE: No. 3 National Drilling Machine, steel mast and steel sills—145 H.P. Hercules Diesel Drilling motor with Young reverse clutch — motor rebuilt — new sleeves, pistons, bearings, rebuilt crank shaft. A-1 condition. Price $5,000. CARPER DRILLING COMPANY, ARTESIA, NEW MEXICO.

Immediate Delivery—6″ Carver self-priming Centrifugal Pumps—skid mounted, bronze impeller, powered with 4 cylinder, 22 h.p. Wisconsin engine. Brand new, crated. $424.20 each, F.O.B. Subject prior sale. Address W. H. Orr, Rockdale, Texas.

**FOR SALE**

**COMPLETE ROTARY DRILLING RIG, including 10,000 ft. 4½″ Drill Pipe with Tool Joints, Parkersburg Steel Derrick, 122 ft., 500,000 lbs., B.I.W. Unitized Draw Works, Boilers, Pumps, Crown Block, Wire Line, Tool House, Valves, Fittings, Hand Tools, Etc. May be inspected at Houston.**

**Charles C. Smith & Company**
**Second National Bank Building**
**Houston 2, Texas** **P-4391**

■ FOR SALE: No. 2 All Steel National Drilling Machine with Calf Wheels. O. H. Pouppirt, Box 207, Cody, Wyoming.

■ GARDNER-DENVER 7¼ x 10 POWER MUD PUMP, unitized on steel skids, 4-cyl. heavy duty (Climax) motor, V-belt drive, surge chamber. Will sell $4250.00. Located—Wichtex Machinery Co., Wichita Falls, Texas.

■ FOR SALE: 6000 ft. grade D National Drill Pipe 4½ in. with Hughes Streamline Tool Joints—Excellent condition—No dealers. Hancock Drilling Co., Houston, Texas, Phone Jackson 2-2928.

■ FOR SALE: Best business location in Odessa, the fastest growing city in Texas. Four beautiful homes Stucco, two Fairbanks-Morse Pumps—one acre of land—fenced. Marie Webb, Box 1135, Hays Hotel, Odessa, Texas.

■ FOR SALE: 3850′—4½″ API, FH Drill Pipe with Hughes Counterbore Tool Joints.
3700′—4½″ API, FH Drill Pipe with National Shrink Thread Tool Joints.
2190′—3½″ Internal Flush Drill Pipe with Hughes Modified Counterbore Tool Joints.
1380′—3½″ Internal Upset Drill Pipe with National Shrink Thread Tool Joints.
3750′—3½″ API, FH Drill Pipe with National Shrink Thread Tool Joints.
2040′—3½″ API, FH Drill Pipe with National Shrink Thread Tool Joints.
1—6 SRK Waukesha Engine completely reconditioned.
1—Beam Type, All Steel Drilling in Unit with "A" Type Mast and Buda Engine, plus miscellaneous tools, Wire lines, sand line and equipment. Veeder Supply & Development Company, Cherryvale, Kansas.

**FOR SALE**

**V8 LeROY ENGINE MODEL RXIV**

Complete with steel skids, steel engine house enclosure, heavy duty twin disc with clutch with V-belt pulley, starting engine, and butane equipped. Engine has recently been overhauled, including new pistons and all new bearings. Price is $3,750.00 and is subject to prior sale. **E. B. Clark Drilling Company,** 612 City National Building, Wichita Falls, Texas, Telephone 9466.

**FOR SALE:**

**30 Used 3½-4 Ton Model CU Four Wheel Drive Trucks. Wheelbase 148″. SRS or SRK Waukesha Engines. 5 Speed Transmission with PTO. 11:00x20 Tires, duals rear. Ideal for well servicing units and other applications.**

**Also used engines and trailers for sale.**

**Write or call GLENN BULLARD, LD #22, BOX #471, DUNCAN, OKLAHOMA.**

**FOR SALE**

2—U-495 Climax 12 cylinder Gas Engines, slightly used but rebuilt and with new engine guarantee at reduced prices.
1—Compound drive for two large engines complete with Vee Belts, engine skids and all rotating elements. New.
1—90-Horsepower IA-6 Superior Diesel Cable Tool Drilling Engine, overhauled and guaranteed.
1—BIW model 76 unitized steam drawworks with water-cooled rims and heavy chain guards. New.
3900′—4½″ OD Drill Pipe with shrink thread National joints. Excellent condition. Empire Oil Field Machinery Co., P. O. Box 4026, Odessa, Texas.

FOR SALE

Available Immediately—Located in New Mexico: 4—112 H.P. 150# W.P. Collins Water Tube Portable Boiler, 13 Section—14 Tubes per Section—1120 Square Feet Heating Surface—Weight Approximately 2500#.

Box 89, Houston, Texas.

Chain Hoists—few new Yale & Towne or Wright with 20 ft. lift—1 ton $72.00; 2 ton—$125.00; also new 2½ KVA-AC 110 light plant $235.00. Wire or phone W. H. Orr, Rockdale, Texas.

**FOR SALE**

**50— 500 Barrels**
**10— 1,000 Barrels**
**20— 5,000 Barrels**
**4—10,000 Barrels**

**Heavy A.P.I. New closed bolted type steel tanks now located at Ogden, Utah. Can quote reasonable prices in order to move from present premises at once.**

**JOS. GREENSPON'S SON PIPE CORP.**
**National Stock Yards, St. Clair County, Ill.**

## HELP WANTED

■ Men 33 or younger to train for technical sales work in Mid-Continent districts by manufacturer of production equipment. Technical education required. Familiarity with oil production practices desirable. Give complete details of yourself in first letter. Address: Box 79, c/o The Oil Weekly, Houston, Texas.

■ WANTED: By The Superior Oil Company, young men with college background in electronics. Single men preferred. Write P. O. Box 96, Bakersfield, California. Apply 1425 Union Avenue, Bakersfield, California.

■ WANTED: By The Superior Oil Company, young men with college background in geology. Single men preferred. Write P. O. Box 96, Bakersfield, California. Apply 1425 Union Avenue, Bakersfield, California.

■ Experienced seismograph computers, draftsmen, operators, engineers, shooters, helpers, for new organization, Texas-Oklahoma area. Opportunity for advancement in anticipated expansion. Give age, education, detailed complete experience, references. Box 1641, Dallas, Texas.

■ WANTED: Observers, engineers, shooters, and computers, for domestic seismograph work. Good future, permanent employment for those qualified. Address: Box 87, c/o The Oil Weekly, Houston, Texas.

**EXPERIENCED**
PARTY CHIEFS, PARTY MANAGERS, COMPUTERS, OBSERVERS, SURVEYORS, DRILLERS
are wanted for foreign seismic parties
**UNITED GEOPHYSICAL COMPANY**
**595 East Colorado Street**
**Pasadena 1, California**
**822 Thompson Building**
**Tulsa 3, Oklahoma**

## SITUATIONS WANTED

■ Seismograph party chief, degree in geology, with 9 years experience both domestic and foreign, desires position as geologist-geophysicist, preferably with independent, which will afford permanent location for family. Excellent references furnished. Address: Box 83, c/o The Oil Weekly, Houston, Texas.

■ GRADUATE PETROLEUM ENGINEER with 13 years field experience desires position with large Independent in Houston or Mid-Continent region. Address: Box 81, c/o The Oil Weekly, Houston, Texas.

## SITUATIONS WANTED

■ Chief Process Engineer large natural gasoline and synthesis operations including cracking, isomerization, and alkylation; superfractionation specialist. Desire connection consulting engineering firm or work similar to present. Address: Box 84, c/o The Oil Weekly, Houston, Texas.

■ PETROLEUM ENGINEER: Age 40, 20 years general experience in drilling and production operations. Past six years general field engineering. Thorough knowledge of drilling, completions, workover operations, flush and stripper production. Supervisory experience in completion and workover operations. Desire connection with progressive independent as engineer or production superintendent or connection with opportunity for advancement. Address: Box 86, c/o The Oil Weekly, Houston, Texas.

## WANTED TO BUY

■ WANTED: 45 Star Drilling Machine in good condition. With or without tools. Contact P. O. Box 444, Sedan, Kansas, giving location and description of equipment.

## NOTICES

■ MONEY TO PURCHASE oil loans, oil payments and oil royalties in Texas, Oklahoma and New Mexico. Baptist Foundation of Texas, 201-03 Baptist Building, Dallas 1, Texas.

■ Practical Operator with 20 years experience and versed in fundamental geology, desires contact with company or individual to finance preliminary work in new play now starting in Oregon by major companies. Address: Box 78, c/o The Oil Weekly, Houston, Texas.

■ Just leased 4500 acres in Trend and on Surface, Subsurface and Geophysical High. Have good geological report also. 3500 feet will test all formations. Need drilling help only. J. Bell, 1907 Hope Street, Dallas, Texas.

■ Manufacturers Agent, Gulf Coast area desires one additional account. Address: Box 88, c/o The Oil Weekly, Houston, Texas.

**CUBA. JARAHUECA. If Interested in Shallow Production Don't Overlook This Opportunity.** Field producing now 600,000 gals. crude monthly. Selling price $0.12 gal. We own 250,000 acres. Will lease lots from 1000 to 10,000 acres $0.40 per acre per year plus 1/32 royalty. Cost of cable tool drilling averages $1.00 ft. Paying horizon from 400 to 1800 ft. CUBAN OIL ENTERPRISES. 574 Aguiar St., Havana, Cuba.

Did you know that more men exclusively engaged in the drilling-producing business subscribe to **The Oil Weekly** than to any other paper? If you want to buy or sell good used equipment, a low-cost advertisement in this column will get action for you in a hurry. See rates below.

**ADVERTISING RATES**

## TRADING POST SECTION

Regular classified advertisements for this special section, set in type this size without border, takes flat-rate of 7 cents per word for the first insertion and 5 cents per word for each subsequent insertion of same copy. Display advertisements for this section, set in suitably larger type with ruled border, are $5.00 per inch for the first insertion and $4.00 per inch for subsequent insertions. Remittance must accompany copy which should be sent to:

**Trading Post Section, P. O. Box 2608 — The Oil Weekly, Houston 1, Texas**

## YEARBOOK-FORECAST NUMBER

PLACE your order NOW for this important issue of The Oil Weekly to be published February 11. Special rate of $1 per copy.

lock's) F. E. Hill 1 (OWWO), 1980 nsl 4400 ewl Hugh S. Shepherd sur, original owner abnd 8-26-43, 2 mi ne extension, elev 406 ft, Pecan chalk 2563 ft, Austin 3438-3809 ft, Woodbine series 4133 ft, flow mil gas open fr perf 4174-84 ft, td 4240 ft, pb 4220 ft.

### NORTH TEXAS WILDCATS

**Archer County—Failures:** Bridwell Oil Co.'s Oil Investment Co. 2-F, 900 snl 1587 ewl sect 125, John Richards and J. W. Harris sur, abnd 1517 ft.

H. S. Grace et al's Schlimpf 1, 150 wel 450 snl sect 37, blk 4, Clark-Plumb sur, abnd 1198 ft.

**Cooke County—Failure:** Nu-Enamel Oil Op. Co.'s Gwyn 1, 3550 fr nwl 330 fr nel M. Jennings sur A-531, elev 859 ft, Ellenburger 1643 ft, abnd 1688 ft.

**Haskell County—Failure:** Mohawk Dr. Co.'s Baker 1, 660 ewl 2200 snl sect 98, C. Winters sur A-430, elev 1389 ft, Coleman 920 ft, Gunsight 1980 ft, Canyon 2280 ft, Chalk Hill 2360 ft, Ranger li 2500 ft, Capps 3770 ft, Strawn 4190-4690 ft, Smithwick 4709 ft, Bend 5070 ft, Mississippi 5410 ft, abnd 5512 ft.

**Montague County—Failures:** A. R. Dillard et al's Walker 1, 467 out nec w½ ne sect 17, Limestone CSL sur, elev 926 ft, Barnett 6285 ft, abnd 6305 ft.

**Wilbarger County—Failure:** Nat. Assoc. Pet. Co.'s Clancy 1, sw ne ne H&TC Ry. 26, blk 10, elev 1407 ft, abnd 5801 ft.

### NORTH TEXAS OUTPOST

**Montague County—Belcherville Extension:** S. D. Johnson et al's Lee Crenshaw 1, 2196 wel 330 snl of 320 of e 1165 ac, 2002 nsl 2196 wel of W. Wallace sur, 1½ mi nw outpost, elev 933 ft, Bend cong (lower) 5552 ft, pump 75 bbls oil, 4 bbls wtr fr perf 5550-65 ft, td 5719 ft.

### TEXAS PANHANDLE WILDCATS

**Ochiltree County—Failure:** Olney F. Flynn et al's Hoover-Patten 1, sw sw ne H&TC Ry. 213, blk 43, elev 2937 ft, abnd 6198 ft.

**Potter County—Failure:** Addison W. Warner's Bush 2, c se ne G&M 12, blk M-19, elev 3280 ft, abnd 4009 ft.

### WESTERN CANADA WILDCAT

**South Alberta Plains — Princess Failure:** California-Standard's Princess-CPR 38-31-19-11, lsd 15 31-19-11w4th, abnd 4117 ft in Devonian Dolomite.

# WILDCAT STARTS

### ARKANSAS

**Union County:** R. C. Wallingsford's P. Wineman 1, (OWDD) 13-18s-13w, ru to deepen to 3050 ft.

### CALIFORNIA

**Kern County:** General Pet. Corp.'s Kernway 3-6, 6-29s-27e, Saco area, lcn.

Shell's U. C. 2, 3-25s-18e, Dagany Gap area, lcn.

Terry Oil Co.'s K.C.L. 1, 18-29s-28e, Oildale area, dr.

**San Luis Obispo County:** Henry E. Dawson's Dumplin 3, 3-25s-15e, Cholame area, lcn.

**Tulare County:** William C. McDuffie's Bennett 1, 15-18s-23e, Goshen area, lcn.

**Fresno County:** Texas Co.'s Shiells Co. 1, 16-16s-15e, Tranquility area, lcn.

**Los Angeles County:** Atlas Production's Community 1-1, 17-2s-11w, Montebello area, lcn.

**Monterey County:** C.C.M.O.'s Solanco 1, 35-19s-7e, King City area, rur

**Ventura County:** Trans-Cal G&O Corp.'s Trans-Cal 1, 12-4n-22w, Ojai area, rur.

### KANSAS

**Barton County:** Ira Keith's Mammeke 1, se se sw 13-19s-12w, lcn.

**Butler County:** Nadel & Gussman's Crowley 1, sw sw se 11-28s-5e, lcn.

**McPherson County:** NCRA's Moors 1, se se nw 1-20s-4w, c&p.

**Sumner County:** Sunray's Cox 1, se se nw 15-30s-1e, rotary rig.

### NORTH LOUISIANA

**Franklin Parish:** J. M. Hazlewood Co.'s Walden Baker 1, 36-16n-9e, lcn.

### SOUTH LOUISIANA

**Iberville Parish:** A. J. Bankhead's Natalbany 1, 330 fr nwc 19-9s-2e, St. Gabriel area, 9400-ft test.

**St. Bernard Parish:** Texas Co.'s State-Chandeleur Sound St. Lse. 335-1, s 77° 16 mins w 19,177 fr USCGS "Lur" in Chandeleur Sound, 10,000-ft test.

**St. Mary Parish:** Texas Co.'s State-Cote Blanch Island Lse. 340-8, s 8200 e 2000 fr nwc 11-15s-7e, 9000-ft test.

### NEW MEXICO

**Colfax County:** American Mfg. Co.-W. J. Gourley's Fee 1, unsurveyed land, near c nw 2-26n-20e, 9.3 mi sw of Colfax, dr 2210 ft.

### WEST TEXAS

**Garza County:** Honolulu Oil Corp.-Devonian Oil Co.'s J. R. Durett 1, 440 wel 2200 nsl E.L. & R.R. Co. 1304, 3800-ft rotary test.

### WEST CENTRAL TEXAS

**Callahan County:** R. F. St. John et al's Mrs. S. B. Estes 1, sw nw sw sect 55, BBB&C Ry. sur, 2100-ft cable test.

**Erath County:** S. C. Hoel et al's Clay Lackey 1, 1650 fr sel swl (easterly) John Reed sur 644, 4500-ft cable tool Ellenburger test.

**Jones County:** Mantex Oil Co.'s J. E. Manley 1, 3000 wel 209 nsl T&P Ry. 72, blk 14, 5000-ft cable tool Ellenburger test.

**Taylor County:** Ungren-Frazier et al's Vernon Hudson 1, 330 out swc labor 30, Lge 149, DeWitt CSL sur, 3000-ft test.

### SOUTH CENTRAL TEXAS

**Maverick County:** G. P. Shelton et al's Mitchell Heirs 1, 330 fr s&el 160-ac lse, sect 24, sur 54, 2000-ft test.

South Oil Corp.'s D. D. Feldman 1, 3050 fr wl 4040 fr nl sect 2, 6308.45-ac lse, ru on 7500-ft test.

### SOUTHWEST TEXAS

**Duval County:** D. C. Reed's W. R. Peters 1, 460 fr wl 990 fr sl SA&MG sur 1, ½ mi ne of Rancho Solo fld, lcn.

### LOWER TEXAS COAST

**Live Oak County:** Atlantic's F. P. Morris et al 1, 660 s of swc J. C. Conn sur to point th 660 w in Alexander sur, 647.1-ac lse, ru 10,000-ft test.

Altex Well Servicing Co.'s Schmid Heirs 1, 330 fr wl 2310 fr sl 640-ac lse, Sam Owen sur 132, 1300-ft test.

Sid Katz's Leonard Jacob Est. 1, 2840 fr nl 434 fr el Louis Ayars sur, 385-ac lse, sect 15, 1500-ft test.

**Nueces County:** Atlantic's J. H. Ewing 2, 660 fr sl 2970 fr wl sect 46 M. Lopez de Heera Gr, 219-ac lse, 7400-ft test.

**Refugio County:** Sam E. Wilson, Jr.'s Hynes 1, 330 sw Melon Crk 330 n of sl lse, Isabell O'Brien sur, ru 7000-ft test.

### UPPER TEXAS COAST

**Chambers County:** Standard of Tex.'s State-Galveston Bay 2-135, 660 fr ne&sel sect 135 2640 se 1-135 dry hole, Smith Point outpost, 9800-ft test.

### EAST TEXAS

**Cherokee County:** Clark & Cowden Dr. Corp.'s E. M. Decker 1, 330 ewl 330 fr m/s/sl C. G. Woods sur, 7½ mi w of Alto, Woodbine test, cem sur pipe.

**Hill County:** Joe Thompson et al's E. M. Hawkins 1, 1850 fr nwl 1500 fr swl Ray Alford sur, 1½ mi nw Hubbard, Austin chalk 570 ft, dr 655 ft.

**Limestone County:** Woodbine Oil Corp.'s J. W. Noel 1, 400 fr nel 600 fr swl of 80-ac lse, or 13,000 fr swl 7325 fr sel of M. R. Palacious sur, 10 mi se Groesbeck, cem sur pipe.

### NORTH TEXAS

**Archer County:** Bridwell Oil Co.'s W. P. Ferguson 1, 922 snl 1310 ewl blk 11, KWVFL sur, sd 1880 ft.

Timberlake & Kelleher's Wilson-McCrory 1, 1531 wel 750 nsl ne¼ sect 114, ATNCL sur, 1500-ft rotary test.

**Clay County:** Standard Well Service's G. L. Ellis 1, 150 out nec of w 40 ac of 100-ac tr, sect 47, Specht & McCutcheson sur, 1350-ft rotary test.

**Cooke County:** Fred Snuggs et al's Mrs. M. E. Henderson-Sun 1, 330 out sec blk 51, Fannin CSL sur, 5500-ft rotary test.

**Jack County:** J. M. Hickey et al's Chas. E. King 2, 150 snl 240 wel of s½ sect 3307, TE&L Co. sur, 825-ft cable test.

**Young County:** Hanlon & Buchanan's O. J. Kendall 1, 2621 ewl 2271 snl sect 4, J. Crosby sur A-1722, 5000-ft Ellenburger test.

### TEXAS PANHANDLE

**Collingsworth County:** Humble's Mrs. M. R. Scruggs 1, c ne ne H&GN Ry. 58, blk 19, 17,000-ac blk in sw part county, 6500-ft Ellenburger test.

## Missouri Geology

The Geological Survey and Water Resources Board of Missouri, Rolla, announces Volume 31, Bibliography of the Geology of Missouri, is available at 50 cents per copy. Report of Investigation No. 1 recording recent drilling in northwestern Missouri, will also be released shortly and can be obtained for 50 cents.

"Best Bet Yet"

This reinforced disc of PBX synthetic rubber has many time and money saving advantages. Reduces fire hazard—Reduces costly fishing—Cleaner tubing and floors—Making for safer working conditions—Protection to crew—Automatic action.

*See Composite Catalog*

**Patterson-Ballagh TUBING WIPER**

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## SQUEAKS from the BULL WHEEL

### Deserves Fair Trial

After his 18th child had been born the father was very unhappy. He told his friends that if the stork knocked at his door once more he was going to hang himself. Sure enough, the stork did knock again and his friends came over to remind him of his promise to hang himself. So he got himself a rope and went out to the barn, while the friends stood around and waited.

In five minutes he came out of the barn with the rope in his hand.

"What's the matter? We thought you were going to hang yourself."

"Well, boys I'll tell you. I had the rope around my neck and was just ready to jump, when all of a sudden it occurred to me that I might be hanging an innocent man."

### This Curious World

Overheard: "What a beautiful fur coat! How much did you play for it?"

The best way to forget all your other troubles is to wear tight shoes.

Dieting is the triumph of mind over platter.

When a girl says she's fit as a fiddle it usually means she's waiting for the right beau."

The difference between a bachelor and a married man is that when a bachelor walks the floor with a baby, he's dancing.

As they grow older women still can be as pretty as ever, except that it takes more time.

A fellow who had lost his wallet received this letter: "Sir: I foun yor mony. Remorz is nawing me, so ahm sendin sum of it bak. When it naws me again, I will sen sum more."

### Single Weakness

"I don't smoke, drink, or neck or . . ."
"Then what do you do?"
"Tell lies."

### Better Keep Her There

"When your wife returns from the hospital, you'll have a different woman."
"But, Doc, suppose she finds out?"

### Poet's Nook

Here's to the girl who is mine, all mine!
She drinks and she pets
And she smokes cigarettes
And sometimes, I'm told,
She goes out and forgets
That she's mine, all mine!

### A Navy Knave

"I see you're naval," said the lady in the low-cut gown.
"Yeah, and I see yours, too."

### Long Quest

"Has your boy friend always been so ambitious?"
"Oh, yes, ever since he's been knee high."

### Dead End

"Porter, bring me another glass of ice water."
"Sorry, suh, but if I takes any mo' ice, dat corpse in de baggage car ain't goin' to keep."

### No Place to Turn

She was taking a swim in a secluded lake when she spotted a boy tying knots in her clothes. Swimming to the bank, she snatched up an old tub as a shield and advanced angrily.

"Hey, you! Do you know what I'm thinking?"

"Yep, you think there's a bottom in that tub."

### Little by Little

Told that he would have to submit a statement before he could get his pay for a hauling job, a Negro came up with this:

"Three comes and three goes, at four-bits a went, three bucks."

### Perfect Listener

"My wife talks to herself."
"So does mine, but she doesn't know it. She thinks I'm listening."

### Cycling Sinner

Angered because he thought someone had stolen his bicycle a couple of days before, the Deacon began lecturing his Sunday School class on the evils of theft and wound up with a discourse on the Ten Commandments. But when he came to "Thou Shalt Not Commit Adultery," he stopped suddenly, scratched his head, and said: "Class dismissed. I just remembered where I left my bicycle."

### True to Form

"I just swatted five flies—two males and three females."
"How can you tell?"
"I got two on the card table and three on the mirror."

### Presently an Orphan

"What a handsome baby. The living image of your husband! How old is he?"
"I don't know for sure. We adopted him."

### Perfectly Imperfect

"Where did you get that girl—buck teeth, cross-eyed, bow-legged, stringy-haired . . . ?"
"You needn't whisper, pal. She's deaf, too."

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**Maj. Jack I. Laudermilk,** returning to civilian life after more than four years in the Army, has become head of the department of petroleum engineering at New Mexico School of Mines. He served overseas in the European Theater of Operations as an intelligence officer in the field artillery. Following V-E Day he was military summary court officer of the city of Nordlingen, Germany, with the army of occupation.

Maj. Laudermilk

Major Laudermilk is a registered professional engineer, He was a petroleum engineer in the Mid-Continent before becoming a faculty member of the University of Texas prior to the war.

**Ralph K. Davies,** deputy petroleum administrator, will speak at the annual meeting of the San Joaquin Valley Oil Producers Association at Bakersfield, Calif., January 30. A board of directors will be elected and a president will be chosen to succeed the late **Dana Hogan.**

**Capt. Joseph S. Blackman,** formerly deputy conservation officer at Tulsa, is on terminal leave from the Army. He plans to reenter the oil business.

**Dr. H. Andrew Ireland** has resigned from the U. S. Geological Survey at Norman, Okla., to head the research laboratory of the Standard Oil Company of Texas, with headquarters at Midland, Tex. For the past two years Dr. Ireland has been doing research work on the Arbuckle group.

**H. H. Power,** former chief engineer for Gulf Oil Corporation at Tulsa, and now chairman of the petroleum research department of the University of Texas, spoke on "Some Petroleum Engineering Problems in Venezuela" before the Mid-Continent Section, AIMME, at Tulsa.

**Bernard A. Ray,** Midland consulting geologist, was elected president of the West Texas Geological Society. **William J. Helseweck,** Gulf Oil Corporation, and **Charles A. Shaw,** Forest Development Corporation, were chosen vice president and secretary treasurer, respectively.

**W. B. Head, Jr.,** has been appointed manager of the Houston division of United Gas Corporation to succeed **K. L. Simons,** retiring after 44 years in the gas utility business. **James A. Wilson,** division manager at Monroe, La., was named assistant manager of the Houston division.

**B. R. Carney,** formerly manager of the natural gas and gasoline division in the Mid-Continent area for Shell Oil Corporation, has been made special assistant to **J. H. Dunn,** president of the Shamrock Oil and Gas Corporation, and will make headquarters in Amarillo, Tex. Carney resigned from Shell last spring and had been consultant chemical engineer for Shamrock since last July.

**M. W. Sublett** has taken charge of Sohio Petroleum Company's crude purchasing department at Tulsa, replacing **J. T. Perkins,** who has been transferred to the new Dallas office.

**J. H. Moyar,** who retired as the Fort Worth division production superintendent of Stanolind Oil & Gas Company after 40 years of field work to become a rancher in Montana, has returned to Fort Worth as the Mid-Continent manager of sales for Security Engineering Company, Inc. The California firm manufactures oil well drilling and production equipment.

**J. R. Parten,** Houston oil man, has been named by the board of governors of the Federal Reserve System as chairman of the board and Federal Reserve agent of the Federal Reserve Bank in Dallas.

**Rex L. Smith** has returned to Skelly Oil Company, Tulsa, after five years in the armed forces, and is assistant manager of the pipe line and crude oil purchasing departments. He held the rank of Lieutenant Colonel and served 26 months in the European theater, where he became commanding officer of Military Pipe Line Service in the European Theater of Operations.

**Charles A. Perlitz, Jr.,** has been appointed general attorney for Continental Oil Company with headquarters in Houston, succeeding **John R. Moran,** who resigned to enter private practice in Denver.

**Herman Wachsman,** who during the war was U. S. Army petroleum coordinator for the Philadelphia port area, was presented an award for exceptional civilian service at a ceremony in the headquarters of the Philadelphia Quartermaster Depot.

**Jerry Roberts** has resigned as district geologist for American Trading & Production Corporation, Midland, Tex., and will open an office as consulting geologist in the same area. He formerly was with Amerada Petroleum Corporation and Sinclair Prairie Oil Company.

**C. P. Parsons** of Duncan, Okla., vice president and general manager of Halliburton Oil Well Cementing Company, is making a tour of South American oil fields.

**Norman Stewart** has joined The Carter Oil Company and is stationed in the Michigan area. He was recently discharged from the Navy.

**John O. Farmer,** for 11 years field engineer and general sales manager for Otis Pressure Control, Inc., Dallas, has resigned to become a partner and general manager in the newly created drilling company of Jones, Shelburne & Farmer, Inc. Officers of the new drilling firm are **Fred Jones,** president; Farmer, vice president; and **Sam P. Shelburne,** secretary-treasurer. General headquarters will be maintained in Oklahoma City.

John O. Farmer

**Bryan D. Beck, Jr.,** for six years petroleum geologist and engineer for Sun Oil Company, Beaumont, Tex., division, has become associated with **Randolph C. Reed** in the leasing, royalty and consulting geology business with headquarters in Beaumont.

**L. W. Parsons** has been appointed manager of export sales for the Eastern Division of Tide Water Associated Oil Company, with headquarters in New York. He was manager of the company's Washington office during the war. Prior to that he was chief technologist in charge of research and development of the company's Eastern division.

**Eugene P. Bowler,** Bradford, Pa., a lieutenant commander in the Navy during the war, has accepted an assignment with the Pennsylvania Grade Crude Oil Association as field engineer in the production research department at Bradford. Bowler was in charge of the Sloan & Zook Company oil laboratory at Bradford for several years before entering the Navy in 1941.

**John F. Seal** and **C. Francis Beatty** have been elected to the board of directors of Socony-Vacuum Oil Company.

Seal, who has been assistant treasurer since 1931, will become treasurer, succeeding **Arthur T. Roberts,** who retired December 31. Beatty, until recently president of the Socony Paint Products Company, will be active in the marketing operations of the company.

**James F. Brannan,** Fort Worth division chief scout for The Pure Oil Company, has been transferred to Wichita Falls as landman for the North Texas district. He is succeeded by **Roy M. Mays,** former New Mexico scout who served in the Federal Bureau of Investigation during the war.

**Winston C. Allen,** for three years with PAW in Washington as an attorney and chief of the development section, Production Division, has opened offices for the general practice of law in the Midland Theater Building, Newark, O.

## MEN IN THE INDUSTRY NEWS

**O. C. (Doc) Olson,** who holds a degree in geology from the University of Oklahoma and served as captain in the Marine Corps with 22 months in the Pacific, has joined the Texas Railroad Commission's Midland district office as junior engineer.

**Ed. A. McCullough,** formerly on the West Texas geological staff of Phillips Petroleum Company, has joined the American Trading & Production Corporation with headquarters at Midland, Tex.

**E. Russell Lloyd** and **John M. Hills,** Permian Basin consulting geologists, have organized the Midland Sample Library, which has established a plant at Midland, Tex., to classify and store oil well samples by contract.

**J. O. Hoard, Jimmie N. Hoard** and **A. C. Grimes,** all of Houston, have organized Hoard Exploration, Inc., with capital stock of $25,100.

**Coye Ramay, R. A. Wade** and **Langston Terry,** all of Houston, have formed the Jefferson Pipe Line Company with headquarters at Houston.

**George E. Burgher,** for the past two years land representative for Continental Oil Company at Tulsa, has resigned effective February 1 to resume the presidency of the Bur-Kan Petroleum Company with offices at the Philtower Building, Tulsa.

**P. S. Magruder,** manager of manufacturing for General Petroleum Corporation, has been elected vice president. Magruder joined the company in 1925 as gas tester. Subsequently he held positions as gas engineer, manager of the gas department and finally manager of manufacturing. He was elected to the board of directors last fall.

**John DeHetre,** field engineer for Youngstown Sheet and Tube Company, has been elected chairman of the Southern California Junior Section of AIME, succeeding **Dick Parsons** of Standard Oil Company of California.

**Sherman A. Wengerd** has been discharged from the Navy, in which he held the rank of lieutenant commander, and has joined Shell Oil Company's exploration department at Wichita Falls, Texas, as geologist. He saw service in Alaska and the Pacific.

**C. J. Rapp,** assistant office manager of the Indianapolis sales field of Standard Oil Company (Ind.), has been transferred to the same position in the Chicago sales field to succeed **G. W. Ashman,** retired after almost 43 years service.

**Robert H. Dott** of the Oklahoma State Geological Survey at Norman, gave a lecture on "Survey Work and Program" before the Shawnee Geological Society January 10.

**W. M. Walworth** has been elected vice president and chief engineer of Mack Manufacturing Corporation. He has been acting chief engineer since March, 1945, and joined the Mack organization in 1939. His headquarters will be at the company's general offices in the Empire State Building, New York City.

W. M. Walworth

**Robert S. Hatch** has been appointed manager of the purchasing department of The Texas Company to succeed **Greer W. Orton,** who now becomes assistant to **Harry T. Klein,** president.

Hatch, who has been with the company since 1927, and a member of the purchasing department since 1938, is a graduate of the Massachusetts Institute of Technology. He received a degree in civil engineering in 1927, and has served with the company ever since. He was in the refining department until 1938, when he was transferred to the purchasing division and became assistant to the manager in 1939. During the war he served as chairman of the materials subcommittee for District 1 of the Petroleum Industry Committee.

**Merle Hill,** Texas Pipe Line Company, Tulsa, was elected president of the Petroleum Electric Luncheon Club of Tulsa, affiliated with the Electric Industry Association, succeeding **V. J. Sittel,** Stanolind Pipe Line Company. Other officers elected were **A. S. Munneke,** Stanolind Pipe Line Company, vice president; **Dick Rumley,** Graybar Electric Company, secretary-treasurer.

**Charley Bassett** has been appointed oil pipe line checker for New Mexico, having formerly worked for the state as a field agent in the gasoline tax department.

**J. S. Gowdy,** for 38 months with the Seabees, has returned to Wyatt Metal & Boiler Works at Houston to become purchasing agent. He replaces **C. L. Williams,** who has left the company to enter business for himself. Prior to joining the Seabees, Gowdy was in Wyatt's sales and production departments. In the Seabees he served 18 months in the Aleutians, one year in California, and six months in the Hawaiian Islands.

J. S. Gowdy

**F. W. Oudt** has been transferred from Saginaw, Mich., to Houston and promoted to senior geophysicist for Shell Oil Company. At Saginaw, Oudt was chief seismologist for the Michigan division of Shell's Mid-Continent area. Oudt joined Shell at Houston in 1926, Later supervised crews in the Mid-Continent area, and from 1936 to 1943 was in charge of geophysical work in Illinois, Kentucky and Indiana. In 1943 he moved to Saginaw as chief seismologist.

**Mills Cox,** who prior to the war was vice president of Mills Bennett Production Company, and who entered the air force and rose to the rank of lieutenant colonel, has joined the staff of H. L. Hunt, with headquarters in Shreveport. He is in the drilling department.

**Glenn H. McCarthy** is the head of the McCarthy Oil & Gas Corporation, which has been given permit to operate in Texas under a Delaware charter with a capital stock of $1 million. He also is associated with **Louis Baker, Francis Bostick** and **Coye Ramay,** all of Houston, in the organization of the Neches Natural Gas Company. Headquarters of both firms are in Houston.

**D. C. Harman, John D. Sturtevant** and **A. G. McNeese, Jr.,** all of Houston, have organized the Absorption Plant, Inc., with capital stock of 20,000 shares of non-par value.

**J. C. Chance** is the head of the J. C. Chance Well Service, Inc., a new Beaumont, Tex., firm with capital stock of $15,000. **L. H. Noble** and **J. G. Blythewood,** both of Beaumont, are associated in the enterprise.

**Edmund Borys,** geologist for Standard Oil Company of California in California the past seven years, has been transferred to Midland, Tex., as regional geologist for Standard Oil Company of Texas.

**Robert Altrogge,** assistant scout for The Texas Company in the Mattoon, Ill., offices, has become chief scout at the company's Mt. Pleasant, Mich., office. Altrogge is succeeded at Mattoon by **M. A. Ayers,** who returns to the job after serving in the Navy.

**Capt. Frank G. McClintock** has resumed his duties as vice president of the Zephyr Drilling Company, Tulsa, after serving with the U. S. Marines in the Central Pacific. McClintock was cited for meritorious service and received the Bronze Star.

**William Crawford** is the Texas manager of the Mantex Oil Company, New Jersey corporation with capital stock of $25,000, and headquarters have been located in the Continental Building, Dallas. The firm is starting a wildcat in Jones County.

**John Teer** has returned to Reed Roller Bit Company, Houston, as special representative. He was formerly with the Reed company, and then became president and general manager of the Layne and Bowler Company, Houston. During the war he managed the Dickinson Gun Plant in Houston. His headquarters will be at the Reed Roller Bit Company.

John Teer

**R. Murray Johnson,** Magnolia Petroleum Company leaseman for 26½ years, retired January 1 to devote full time to his stock farm and real estate holdings. He will have an office in the Magnolia Building, Dallas.

**Joseph W. Sears** has been appointed district manager for Link-Belt Company in Houston, with offices at 711 Main Street. He was formerly district engineer at the company's plant in Dallas. **Stuart Penick** has been appointed to the Dallas district, succeeding Sears. Both men have been with Link-Belt for a number of years and have served in various districts.

## Deaths

**Rupert J. Daugherty** of Bartlesville, Okla., superintendent of public relations for Cities Service Oil Company, died January 12 after a heart attack.

Rupert J. Daugherty

Daugherty, 55, joined the company in 1926 and the next year entered public relations work in the firm's gas division. He was named director of the information service department in 1929 and held that position until 1937, when he was chosen manager of the industrial relations department.

Daugherty was a Bartlesville city commissioner for 16 years and mayor for 12 years. He also was a past president of the Bartlesville Chamber of Commerce and national counsellor to the U. S. Chamber of Commerce. During World War I he was a member of the U. S. Shipping Board as a dollar-a-year man and a member of the Oklahoma State Council of Defense. In the last war he was a special consultant to the U. S. Treasury Department.

**Arthur Paul McGrath,** sales promotion and advertising manager for Mid-Continent Petroleum Corporation, Tulsa, died January 10. He was 47 and had been in Tulsa since 1934, going there from Terre Haute, Ind., where he had been division sales manager for Mid-Continent.

**J. W. Pitcher,** 43, electrical engineer for Engineering Laboratories, Inc., Tulsa, died January 12 as a result of an automobile accident in which his 16-year-old son, **Rex Pitcher,** also was fatally injured. The two were on a trip to Alabama when their car crashed head-on into another car after a tire blowout.

**Roland M. Broach,** 49, a member of the accounting department of Stanolind Oil and Gas Company, Tulsa, died January 15, following a heart attack. He was a native of Meridian, Miss., and was a World War I veteran.

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## Colorado Well Logs

Publication of Vol. 41, No. 1, of the *Quarterly* of the Colorado School of Mines has been announced by the Department of Publications. This issue contains "Selected Well Logs of Colorado" by Clark F. Barb, head of the department of petroleum engineering at the School of Mines.

The logs selected are from more than 6000 well logs in the library of the School of Mines. In addition, scores of logs have been obtained from other sources such as the United States Geological Survey, oil companies, drillers and other industries. The group of logs has been edited to select those giving valuable information on geology and petroleum possibilities. About 500 detailed logs and about the same number of summarized logs have been selected from virtually every county in the state. Included in the introductory material are generalized structural sections across the Green River Basin, the North Park Basin, the Denver Basin and the Uinta Basin, a geological correlation chart, a new field correlation chart and an accompanying two-page inserted index map.

On a large map of Colorado are plotted the location of many wildcat wells and the general outline of the producing fields. Where the information was available the surface elevation, the total depth, and the lowest formation encountered are plotted for each test well. This map is complete to the end of 1944, insofar as records are known. Each detailed log in the text is numbered, and a corresponding number is shown on the map beside the more important or deep tests.

Copies may be obtained from the Department of Publications, Colorado School of Mines, Golden, Colorado, at $2 postpaid.

## Drilling Accounting

The American Association of Oilwell Drilling Contractors has released to member contracting firms a Manual of Uniform Accounting Practices for the drilling industry, prepared by its committee on accounting, and published and distributed by the association.

This book is the first complete accounting text to be released in which the principal interest is centered on accounting for the true cost of drilling oil and gas wells. Ample provision is made in the account structure, however, to accommodate activities other than drilling.

The manual sets out recommended practices for breaking down drilling costs into simple and logical divisions as a basis for developing accurate average cost factors. By extension charts and record forms, the manual illustrates how drilling costs may be systematically and consistently accumulated in any degree of detail desired by the contractor.

Accompanying the manual is a companion volume, the Costing Guide. In the Costing Guide the Committee, with the cooperation of supply and service companies, has listed in alphabetical order every item of supply material and repair and replacement part to which reference could be found. These items are keyed to the account numbers appearing on the well cost extension charts in the Accounting manual, with blank columns for inserting an operator's private account code. This arrangement enables the distribution clerk to charge items of well cost to the proper expense account, even though he may not be familiar with the nature of the items or their use.

Further information may be had from the American Association of Oilwell Drilling Contractors, 1408-10 Gulf States Building, Dallas 1.

## Trade Index

Dun & Bradstreet, Inc., 290 Broadway, New York 8, announces that the first issue of the United States Trade Index, listing North American manufacturers with products for export to Latin America, will be issued in the spring. Distribution will be through the Dun & Bradstreet offices and agents in the 29 Latin America markets and 40,000 copies will be placed in the hands of principal buying offices, manufacturers, sales agents, banks and government purchasing divisions.


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## 1—Excavator

Bucyrus-Erie Company announces a 1½-yard, Model 38-B fully convertible excavator. Fundamentally constructed for equal effectiveness as a shovel, dragline, crane or clamshell, the excavator is

said to offer a number of operating refinements.

As a dragline, the outfit has big working ranges with a new mast-type suspension available for long booms. Full rotating fairlead, selection of wide, long and tapered end crawler mountings for ample bearing area assure superior performance in soft going.

As a shovel, features include a strong but light boom with large diameter point sheaves for effective application of digging force, independent positive twin rope crown and high lip, all-welded dipper for fast filling and dumping in rock or dirt.

As a crane, the model offers long booms with optional jib extensions, two-clutch operated independent boom hoist with full, accurate power control of raising and lowering, and optional independent two-speed propel. Convertible features include ample capacity, easy control of clutches, drum capacities and dimensions, balance of speed and power, accessibility of machinery, and easily mounted and demounted front ends.

*(Check item 1 on coupon for more information.)*

## 2—Gasket

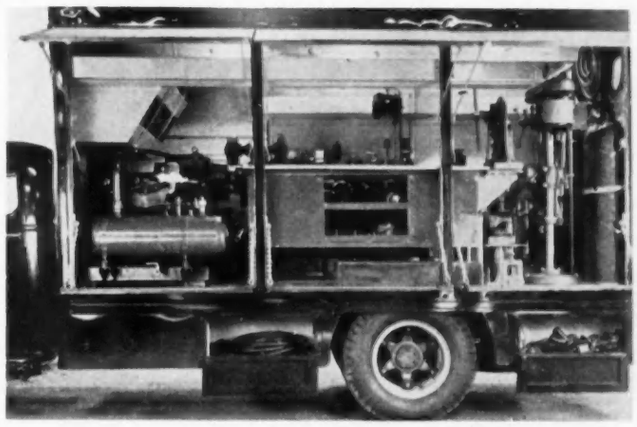
Products Research Company has developed an all-purpose gasket known as Chrome Lock. The gasketing can be finger-pressed onto the surface and, it is claimed, will stay put. The material has an adhesive back and a crinolin liner upon which the template may be laid and either scribed or marked with an ordinary lead pencil. Quantities of gaskets may be cut at one time and with the liner left in place, stacked in parts bins without danger of sticking together or collecting dirt and filings.

Among features of the material claimed by its manufacturers are flame resistance, fuel resistance, rust-inhibition, anti-wicking, lamination, non-oxidation, non-hydroscopic, compressibility, cushioning, and ease of handling.

*(Check item 2 on coupon for more information.)*

## 3—Truck-Mounted Shop

Davey Compressor Company offers a truck-mounted repair shop adaptable for oil field work. Suitable for mounting on any standard long wheel base truck, the shop assembly contains virtually every item of equipment needed for mechanical repair and maintenance work. The shop was designed to eliminate the hauling of broken-down machines to central shops for repairs.



While it is possible to secure almost any desired combination of equipment, the company has worked out a number of standard assemblies for the use of specific operators. One assembly includes as its main units, a 60-cubic-foot compressor, a 300-ampere welding generator, 5 KW power generator, a 14-inch lathe (with complete lathe accessories and tools), and a drill press of 1-inch capacity.

Auxiliary accessories are the same as those found in any stationary machine shop.

Key to the entire assembly is the split propeller power take-off. This device inserted in the drive shaft of the truck, transmits all of the power of the truck engine to the driving of the air compressor, welding generator and power generator. Its use eliminates the need for separate driving engines for each piece of equipment and permits placement on one truck of machines which, individually engine-driven, would require at least three trucks. Extremely simple in design and construction, this take-off can be installed in any garage or service shop.

The lower third of the sides of the truck body may be lowered to a horizontal position, where they provide a large amount of outside work bench space. The upper two-thirds of the body sides are raised to furnish protection against sun and rain for men working outside of the truck at these benches. The body is waterproof and can be locked securely to prevent tampering or theft.

*(Check item 3 on coupon for more information.)*

## 4—Control Valve Assembly

The J. A. Zurn Manufacturing Company has developed a remote control valve assembly to provide a maximum margin of pipe line safety by facilitating immediate control of valves in hard-to-get-at places. From one easily accessible control board, it is claimed that valves can be opened and closed with a minimum of delay, and thereby offering a greater degree of control.

These assemblies easily operate and control valves located below floor level, close to the ceiling or walls and partitions, inside tanks or processing vessels, or in the midst of complicated installations of piping and equipment. The as-

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**In addition to information checked above, I would like more data on products or services advertised elsewhere in this issue by_____ Company**

**Name_____ Title_____**

**Company_____**

**Address or P. O. Box_____**

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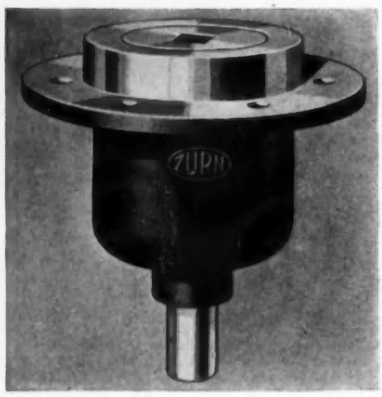
***(To avoid delay PRINT or TYPE clearly name, company and mailing address)***

sembly consists of a flexible cable, for transmitting torque to the handle of the valve to be operated, or a rod or pipe connected by universal joints; a remote valve control box, the cover of which

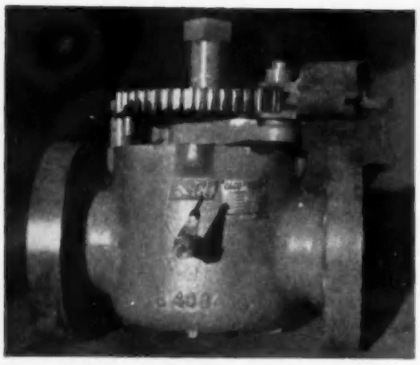


can be engraved to identify the type of valve it operates; sleeve bushings, terminal brackets, cable clips and a rod coupling for the valve wheel.

*(Check item 4 on coupon for more information.)*

## 5—Valve

The Electric Steel Foundry has completed development of a valve said to embody a totally new principle in valve construction. It is known as the ESCO Duoseal Cylindrical Plug Valve, and



was designed for the transmission of high pressure liquid petroleum gases.

The valve depends for its tightness of seal upon a special metallic gasket compound applied under pressure to key points in the body and the plug. Actually, the cylindrical plug fits the body with a fairly generous tolerance and no metal-to-metal seal is obtained. The metallic gasket extruded by pressure through vertical grooves at four points on the plug furnishes the seal in the valve which is said to be capable of holding drop-tight pressures as high as 25,000 pounds per square inch.

The valve is produced in a full range of standard sizes and pressure series.

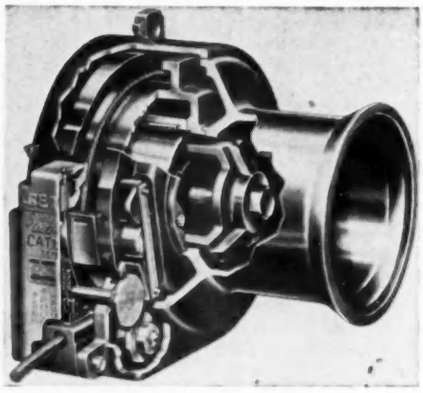
*(Check item 5 on coupon for more information.)*

## 6—Catheads

Gemco Oil Tools have developed a line of new and improved breakout and spinning catheads, consisting of a super-automatic positive clutch type breakout cathead, a plain automatic positive clutch type breakout cathead and a three-in-one friction clutch type breakout, and a spinning combination make and break cathead.

Each of the three different types is built around a common base assembly consisting of shaft adapter for adapting to any size or type of line shaft, adapter retainer, roller bearings and spool. On this base assembly may be mounted any of the different units, thus permitting complete interchangeability of all types. The base assembly is also a complete unit within itself and may be used independently without the cathead unit when doing work requiring only a spool.

Installation has been simplified by the use of a standard anchor for all models. Quick, accurate location is possible by means of a simple fixture. The anchor also serves as a mounting for optional

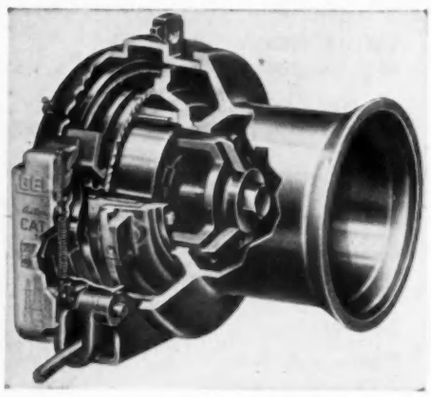


Model A-5 Super Automatic Breakout

hydraulic, pneumatic, steam or mechanical operating control. The cathead may be removed from the line shaft without disturbing either the anchor or operating controls.

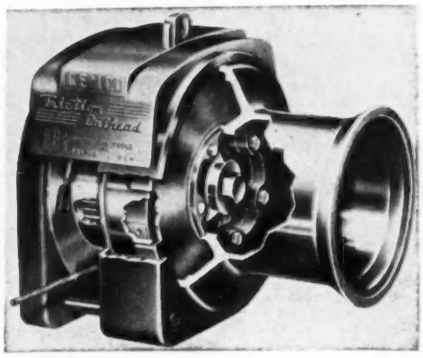
The three-in-one friction clutch type may be mounted and will operate with equal efficiency on either side of the draw works and when mounted may be changed from breakout to spinner or vice versa by changing only the line. It employs an internal expanding friction clutch that requires no adjustments, and has no thrust bearings or toggles.

The super automatic positive clutch type is improved to insure smoother



Model C-5 Automatic Breakout

operation, greater safety and lower maintenance cost. The new safety jerkline shoe can now be removed from grooved drum and replaced in a jiffy without the aid of tools. A new ratchet type



Model B-5 three in one Friction Breakout and Spinning Cathead.

operating mechanism prevents repeat operations even though the operating lever is not released by the operator.

The plain automatic is designed to fill a need for a low cost utility unit. It employes hard alloy steel engaging shoulders that are inexpensive and easily replaced. The shoe is disengaged by a cam from underneath that forces the shoe upward, thus eliminating heavy impacts. The shoe is locked in disengaging position when not in use.

*(Check item 6 on coupon for more information.)*

### Use the Coupon

**For free copies of Manufacturers' Literature or more information on products described on these pages, use the convenient mailing coupon on page 85.**

## Literature

## 7—Pipe

Naylor Pipe Company has a new catalog featuring applications of lightweight pipe in diameters from four to 30 inches. Illustrated throughout are installations showing application of the pipe in many fields where lightweight pipe is used to advantage. Along with valuable data on pipe structures are sections on precision fabrication and pipe connections, including an entirely new coupling, said to save time and labor.

*(Check item 7 on coupon for more information.)*

## 8—Safety Equipment

Mine Safety Appliances Company has published a catalog on safety equipment for industrial application, including many new products. The regular edition of this 6-B catalog is in its usual 8½x11-inch size. Also available is a new pocket-size edition of this catalog, 5x6½ inches, containing the same material and number of pages as the large edition.

*(Check item 8 on coupon for more information.)*

## *Three Generations of Axelsons Active in Business*

Characteristic of the family legend in American industry is the Axelson family of Los Angeles, where three generations are active in the business and another young Axelson, Stephen Charles, 18 months old, is a familiar figure about the plant site.

Recently, four Axelson generations met in the office of Vice President Delbert F. Axelson. Delbert's brother, J. C. Axelson, is president of Axelson Manufacturing Company. The picture honors one of the brothers who founded the California firm 54 years ago. This founder is Charles F. Axelson, who came to California from Topeka, Kans., in the early 90's and in 1892, with his brother Gustavus, founded their first California venture, Acme Iron Works at Santa Ana. In 1895 the firm moved to Los Angeles.

**Left to right, Jack Axelson and his son, Stephen Charles, his father, Delbert Axelson, and Charles F. Alexson, father of Delbert.**

Charles F. Axelson, now 81, is still active in the business although he has watched with pride his sons, Jule and Delbert, and his grandson, Jack, take over business responsibilities. Charles' brother, Gustavus, the other founder of the firm, also is still on the job in the executive offices as chairman of the board.

### $125,000 Expansion Program Is Announced by Gaso Firm

An expansion program involving the expenditure of $125,000 for new machine tools to more economically manufacture new and additional products was announced by Gaso Pump and Burner Manufacturing Company, Tulsa. The company has completed erection of a steel building at the rear of its present manufacturing plant at 902 East First Street, Tulsa, which will be used as a warehouse.

Chief products being manufactured by the company include pipe line pumps, reciprocating power pumps for all oil industry needs, and a complete line of salt water disposal pumps. The company is also building up an export business.

At the annual meeting, all company directors were reelected and directors reelected officers as follows: M. J. Flanagan, president; Howard F. Stover, executive vice president and secretary-treasurer; and T. B. Flanagan, vice president and purchasing agent.

### Eight Vice Presidents Named By Republic National Bank

The Republic National Bank, Dallas, has elected eight new assistant vice presidents. They are C. W. Austin, Jr., John K. Campbell, D. B. Gannon, Pat Henry, Jr., Chris G. Knoerzer, Cecil L. Murphy, John R. Scott and Paul C. Tedder.

All of the new assistant vice presidents were former assistant cashiers in the Republic National Bank.

### Student Welding Awards Made By Lincoln Electric Official

To stimulate undergraduate interest in welding, funds have been donated by A. F. Davis of the Lincoln Electric Company for the A. F. Davis Undergraduate Welding Award. It will consist of four cash prizes totaling $700 to be presented annually to authors and publications for the best and second best articles on welding published in undergraduate magazines or papers durnig the preceding year.

Any undergraduate of a college, university, or institute of technology in the United States or Canada is eligible, but the paper must be published in an undergraduate publication. Judges selected by the Educational Committee of the American Welding Society will select the winning paper in July of each year on the basis of originality of the paper and thoroughness in which the subject is covered. The awards will be as follows: $200 each to the author of the best paper and to the publication in which it appears, and $150 each to the author and the publication for the second best paper.

### American Well and Prospecting Acquired by Bethlehem Supply

American Well and Prospecting Company, Corsicana, Tex., has been acquired by Bethlehem Supply Company, Tulsa. I. C. Smith is manager of the Corsicana plant, which hereafter will be operated as a part of Bethlehem Supply Company.

### Helicoid Gage Division Has New Offices in Bridgeport

Helicoid Gage Division of American Chain & Cable Company, has been moved from Long Island City to Bridgeport, Conn., where the sales, engineering and manufacturing departments will be located at 929 Connecticut Avenue.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**TRADING POST SECTION**

ON PAGE 78 OF THIS ISSUE

## Sales Executives Named by Le Roi Company

John M. Dolan, left, has been appointed vice president in charge of sales for Le Roi Company, Milwaukee. He joined the company in October, 1943, and has been active in establishing overall merchandising programs, covering all phases of the product line in both domestic and foreign fields.

Cecil W. Brown, right, was named general sales manager. He has been with the company since 1938 and has held numerous positions, including those of chief draftsman of the air compressor department, co-ordinator of government contracts, purchasing agent, superintendent of the assembly and test department, field engineer, and assistant sales manager.

Arthur A. Ladwig was appointed vice president in charge of manufacturing. He has been with Le Roi since May, 1923. He started in the shop and successively worked as timekeeper, cost clerk, and engineering specification clerk. A number of years were also spent in the accounting department before he was promoted to production manager in 1936. He became general superintendent in 1938, and works manager in 1942.

## National Equipment Company Opens Offices in Houston

The National Equipment Corporation has been organized by Robert J. (Bob) Miller, Robert B. Collier, and John C. Garrott. The company handles a general line of oil field equipment. Offices and warehouse have been opened at 2930 Pease Avenue, Houston.

Miller, who is president and treasurer of the new organization, has been engaged in the oil equipment business since 1915. He was with Lucey Manufacturing Company from 1915 to 1924, rising to the position of sales manager. Between 1924 and 1940, he operated the Robert J. Miller Company. From 1940 until January 1, 1946, he was with The National Supply Company.

## Upson-Walton to Celebrate 75th Anniversary February 1

The Upson-Walton Company, Cleveland, will celebrate its 75th anniversary February 1 by formulating plans for the greatest period of productivity in its history. The company anticipates unprecedented volume in wire rope output, one of its principal products. Wire rope, tackle blocks, clips, sockets, shackles and other accessories are furnished as a complete wire rope service.

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